



Green TALK

DEPOSITORY

JUN 1 1993

NILES WEST UNIVERSITY OF ILLINOIS IS A 'GREEN' HIGH SCHOOL

Students at Niles West High School in Skokie are helping organize an international youth environmental summit, preserve a prairie, build a greenhouse and increase a recycling program. It sounds like a lot of work but the 50 members of Students Against a Vanishing Earth want to do even more. Rashna Narula, a student at the school, helped organize the Windy City Youth Environmental Summit in January that drew about 200 students from the Chicago area and included several environmental seminars. If you want to contact the high school to find out some of the innovative things they are doing, call 708-966-3800.

If you know about another "Green" high school in your area, please write us at 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois, 62794. Please provide us with details about what that high school is doing to protect the environment.

'CLUNKING' YOUR CAR

Two-hundred-seven lucky Chicago area residents sold their car to the "Cash-for-Clunkers" pilot project to help protect clean air. The IEPA hopes that more people in the Chicago area might also get to participate in this innovative effort. Beginning last October, the IEPA and several corporate sponsors began buying some cars in the Chicago area, testing their pollution and then scrapping them at a junkyard in an environmentally sound manner. These pre-1980 cars pollute 10 times worse than newer cars with better emissions systems.

Director Mary A. Gade said the agency is reviewing the data from the 207 cars to see if it would be economically feasible for Illinois companies to buy up more cars in the Chicago area to clean the air. The IEPA plans to have a report completed sometime in the next few months that will provide more information about the future of the effort.

DIRECTOR MARY A. GADE WELCOMES YOU

I am proud to present you with the first edition of Earth Talk, our new newsletter aimed at high school students throughout Illinois. I hope you will find this a useful way to learn more about the environment and maximize your opportunities for participation. There are some examples in this newsletter, household hazardous waste and Earth Day, where you can really make a difference.



This newsletter came about as a result of a student suggestion when I spoke at the Student Environmental Congress at Willowbrook High School in Villa Park last November. At that event, hundreds of students expressed their interest in knowing more about what the Illinois EPA does and how they can get involved in environmental issues.

We hope to make Green Talk a regular publication that keeps you up-to-date on the activities in our agency and other environmental issues that touch everyone in the state.

Mary A. Gade

EARTH TRAIN GREAT EXPERIENCE FOR 3 CHICAGO GIRLS

Three Chicago-area students — Hillary Carrell, Jennifer Castro and Tracy Bosco — packed all their bags, said goodbye to their families and flew to Los Angeles last summer. Once there, they met the other 167 people that they'd be spending the next two-and-a-half weeks with. Nervous smiles were exchanged as the high school students from 25 states and 16 counties looked at each other. Welcome to the Earth Train.

Earth Train is a program that helps make young adults aware of their potential to help with social and environmental problems. The first four days are spent in training classes on leadership

Earth Train started in California, continued through Denver, Chicago, New York, and ended in Washington, D.C. While in New York, the group presented the top five environmental concerns to the United Nations. In Washington, they shared their ideas with Congress.

Jennifer and Tracy, students at Queen of Peace High School, and Hillary, a student at Amundsen High School, agreed that meeting new people from around the world and learning the different languages and customs was the best part of their experience last summer.

"If the world could be perfect, that would've been it," Jennifer said.

Tracy's daily habits have changed due to her experience. She recycles at home and school, tries to walk instead of driving, and now she knows that she does "have the power to make a difference."

If you're interested in joining Earth Train, write: Earth Train, 99 Brookwood Road, Orinda, California, 95563.



Do you have a question about the environment?

Here's some numbers you can call for answers: IEPA: 217/782-5562
Illinois Department of Energy & Natural Resources: 217/785-2800
Illinois Department of Conservation: 217/782-7454
U.S. Environmental Protection Agency Hotline: 800/572-2515

WASTE FACTS

ARE YOU AWARE?

Enough waste is generated by commercial and non-commercial businesses, government and industry to average 6 to 7 pounds for each man, woman and child in Illinois. Collectively, that equals about 1.3 tons of waste generated per person, per year in Illinois.

YOU CAN HELP

Nearly every home has many products in it that may be considered hazardous. When those items are discarded or improperly used, they can have devastating effects on sewage systems, septic tanks and groundwater supplies. One of the most common products found in homes is old or unusable paint. In



Illinois, literally thousands of gallons of old paints are discarded into trash cans or down drains each year. There are, however, much better methods of dealing with your old paint.

1. PLAN Work closely with your paint dealer to estimate the exact quantity of paint needed for your job and buy only what you need.

2. USE IT UP When finishing a painting project and a small amount remains, continue to use it until it is all gone. Apply a second coat if necessary, or touch up areas which need improvement.

3. PASS IT ON Many local theater groups, churches and housing authorities will accept leftover paint and put it to good use. Also, contact friends, neighbors and relatives who may have a need for paint. Make sure that the paint you give away or donate is in its original container with a legible label.

Volume I, No. 1

Earth Talk is produced by the Office of Public Information for the Illinois Environmental Protection Agency (IEPA).

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If you have a question, comment or contribution for our publication please contact our office by phone at (217) 782-5562 or by writing Illinois EPA 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794.

PARTICIPATE IN EARTH DAY

There will be hundreds of Earth Day and Earth Week activities in Illinois from April 18-24. The whole week will be kicked off with a major celebration including speakers, bands and environmental information at Chicago's Grant Park on Sunday, April 18.

The IEPA is also involved in several activities, including a celebration at the State Fairgrounds on Monday, April 18, where the IEPA will have exhibits on our laboratories and one used tires. The agency will also host an "Environmental Jeopardy" game at the Earth Awareness Fair in Lincoln Park in Springfield on Saturday, April 24. The IEPA also has speakers available to go to your school or another group in your community if you call 217-782-5562.

Other planned activities around the state:

Thursday, April 22:

Amundsen High School in Chicago will host a Regional Youth Summit on the environment.

Saturday, April 24:

U.S. Army Corps of Engineers Carlyle Lake Cleanup/Earth Day Celebration at Carlyle in Southern Illinois. Contact: Norma Hall, (618) 594-2484.

Environmental Spring Fair at the Brookhaven Plaza in Darien. Contact: Ms. Royer, (708) 964-3306.

If nothing is planned in your area, it's not too late to put together an Earthwalk, a school cleanup project, a recycling effort or invite a speaker. For more information on Chicago-area events, call Earth Day Chicago at 312-664-0848 or the U.S. Environmental Protection Agency at 800-621-8431.



WAUKEGAN HARBOR BEING CLEANED UP

Waukegan Harbor, north of Chicago, has been named an "Area of Concern" by the IEPA because of high levels of PCBs (polychlorinated biphenyls) released into Lake Michigan by the Outboard Marine Corporation. Because of the contamination, fishermen were warned about eating fish they caught there. Organisms living along the harbor bottom have been affected and there have been numerous beach closings due to other types of contamination in the harbor.

Work is now underway to clean up the harbor. An important part of the work is participation by a Citizens' Advisory Group, which lets local residents have a say in what is being done.

This citizens' group in Waukegan really got involved. Thanks in part to their efforts, drums and other liquid waste from a closed plant nearby have been removed, groundwater monitoring wells have been installed, a used tire recycling project has been developed, and two "beach sweeps" resulted in the removal of more than 2,500 pounds of garbage and other debris.

GOVERNOR, IEPA PUSH ENVIRONMENTAL LEGISLATION

The 1993 spring session of the Illinois General Assembly is underway and Governor Jim Edgar and the IEPA are pushing several major proposals to protect the environment and public health.

Governor Edgar announced he will again push for a permanent source of funding for cleaning up land contaminated by hazardous waste. The bill (Senate Bill 534) would increase fees on landfilling and incineration to raise an eventual \$8 million per year for cleaning up 105 waste sites around Illinois.

Illinois will also have to meet tougher new federal clean air standards and as part of that, the state will have to modify its vehicle emissions testing program. The legislation (Senate Bill 530) calls for people living in the Chicago and Metro East St. Louis areas to get their cars tested more frequently and it changes the type of testing to meet the federal requirements.

The Governor is also supporting a measure (House Bill 2436) that phases in a ban on the disposal of cardboard, aluminum, newspapers and other recyclable items from landfills. He also wants to help increase the use of pollution prevention at industrial sites with another bill (Senate Bill 629).

If you're interested in any of these pieces of legislation or other environmental proposals, please contact the IEPA or your local legislator.



Green TALK

'CLUNKERS' Can Help the Environment

It's a beat-up old jalopy. The windshield is cracked, rust has eaten through the left front fender and is spreading like an embarrassing skin disease across the hood. Belching a large plume of black, choking smoke every time it accelerates, this car is spewing smog into the Illinois air.

To take this clunker and 206 others like it off Illinois roads, the IEPA spearheaded the recently completed "Cash for Clunkers" pilot project. Last year, certain car owners in the Chicago area were paid top dollar for their belching beasts. A report released by Governor Edgar and the IEPA in August found the scrapping of the cars resulted in a 50-ton reduction in air pollution in the Chicago area.

The IEPA is exploring legislation to enable companies to pursue programs like this and pull more of the pollution clunkers off the road. Getting rid of the clunkers can be less expensive than forcing a company to make expensive changes to its plants since some older cars pollute 10 times more than newer ones. This makes good economic sense.

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U.S. Environmental Protection
toll-free hotline: 800/621-8431

'GREEN' High School of the Month: Minooka Community

At Minooka Community High School, located just outside Joliet, the school's big involvement in environmental issues began in 1990 when a group of faculty members planned a series of all-school activities for Earth Week. A class competition was held to encourage recycling and 11 tons of paper and aluminum cans were kept out of landfills. From this single project, the Environmental Club was born.

Club sponsor Eileen Grosso says the club has now set up a schoolwide recycling program for paper, cardboard, aluminum cans, steel cans and polystyrene. The club also monitors the DuPage River as part of the Illinois Rivers Project.

The members have also planned, built and maintained a bluebird trail, contributed money to purchase and care for acres of rainforest and prepared informational displays for the annual Grundy County Environmental Fair.

If you have further questions about what Minooka has been doing, please call club sponsor Eileen Grosso at (815) 467-9733.

Legislative Update from Springfield

Thanks to a cooperative effort between IEPA and several business and environmental groups, serious leaking underground storage tank problems will be addressed more quickly. Governor Edgar signed legislation (**House Bill 300**) that will add \$110 million to the fund used to reimburse people who clean up the soil after an underground tank leak.

The new initiative sets up a priority system that will focus cleanup on the most serious sites and it will also allow for monitoring of other sites that do not pose a major environmental hazard. These leaking tanks are found at operating and abandoned gasoline stations around Illinois. Estimates are that there are up to 80,000 registered tanks; about 25 percent of them have leaked or will leak.

In other legislative news:

Another critical environmental measure (**Senate Bill 534**) did not win legislative approval in the spring session. The bill was designed to clean up abandoned hazardous waste sites. As a result, some of Illinois' most serious hazardous waste pollution sites will continue to pose serious health and environmental threats. The measure was necessary to give the IEPA \$8 million yearly to start cleaning up more than 120 sites scattered across the state. These sites are home to cancer-causing chemicals, some of which could be seeping into groundwater. In some cases, the soil at the sites is also

contaminated with heavy metals. These heavy metals are substances such as lead and mercury which can cause serious health problems and even death. The IEPA and Governor Edgar will continue to push for passage of this funding legislation.



Before the General Assembly's fall veto ended in early November, there was more discussion about enhanced vehicle emissions testing (**Senate Bill 405**). The legislation would authorize an enhanced testing system that would better measure pollution coming from cars, pickup trucks, and vans. It would also expand the number of vehicles in the Chicago and East St. Louis areas that need to be tested for pollution. The federal government requires Illinois to have an enhanced program fully in operation by 1996 to reduce ozone air pollution in the Chicago area. However, the Legislature did not approve the bill and Illinois now faces possible sanctions from the federal government.

If you have an interest in any of these pieces of legislation, please write your local state legislator or contact us.

Helping After the Flood

At a middle school in Bay Shore, New York, a large map of the United States hangs on the gymnasium wall. One lap around the gym equals about five miles. The goal: trying to run or walk enough laps to make the trip from New York to the Mississippi River, the site of this year's Midwest floods.

Students at Bay Shore Middle School are helping families in many states affected by the flood through this Walk-a-Thon. Anita Levine's 7th graders are "walking for Illinois" and are now pen pals with middle school students in Mary Ann Honicker's classroom in East Moline, Illinois.

All the New York students are sponsored by South Shore Mall businesses, a local shopping center that works to support education. The proceeds from the Walk-a-Thon are then sent to the Red Cross for flood victims.

Bay Shore students participated in other educational activities to learn about the Midwest and its flooding problems. Some activities included reading literature by Mark Twain about life along the river, graphing the rising crest along the Mississippi, and studying about dams and levees.

Green Talk wants to issue a big thank you to Bay Shore Middle School students and teachers for all their efforts.

Environmental Impacts from the Flood

The Mississippi River and its tributaries are dropping significantly, but the IEPA's work for the flood of 1993 is far from over. Here's a highlight of some of the environmental things that happened:

Alton's water supply — The water treatment plant lies right at the river's edge. To stop the river, sandbag levees rose higher and an imaginative "sandbag and plywood sandwich" was built to keep the flood water from contaminating the clean, potable water. The almost superhuman effort was unsuccessful when flood water broke through, but state agencies and local residents rallied together to provide a distribution system that dished out hundreds of thousands of gallons of bottled water and tank truck water to residents in the area.



Flood waste — Just like Hurricane

Andrew, the flood produced hundreds of thousands of extra waste around the state. IEPA stepped in by working with the state Department of Transportation to set up special collection centers around the state for metal appliances, household hazardous waste, and tires. More than 400 tons of metal appliances have already been recycled and kept out of landfills because of IEPA's efforts. The items that couldn't be recycled were run through a mammoth shredder that reduced the waste going to landfills.

Drums of chemicals — Hundreds of drums displaced by the flood were found along the river. The IEPA set up a mobile laboratory in Valmeyer in Monroe County to test these drums before disposing of them. Other drums were found in Greene and Jersey counties and near Kaskaskia Island.

What to Do with Diaper Lint

The Industrial Materials Exchange Service (IMES), jointly operated by the Illinois Environmental Protection Agency and the Illinois State Chamber of Commerce, learned a long time ago that uses can often be found for some very unusual and surprising materials.

But diaper lint? Diaper lint, indeed.

A diaper service recently contacted IMES about listing in the service's bimonthly catalog quantities of the clean lint left behind when diapers are dried. Testing is now underway, and if all goes well, an estimated 800 cubic feet of lint a month will be used by organic recyclers for composting. Finding a new use for the lint is expected to cut disposal costs for the diaper service by 30 percent.

Following the initial listing, other diaper services are now investigating this new market as well, keeping increasing amounts of lint out of the landfills and putting it to a new use.

IMES is a free service designed to help businesses find markets for materials that traditionally were discarded. The goal of IMES is to conserve energy, resources and landfill space by helping industry find alternatives to the disposal of potentially valuable waste.

Additional information about IMES can be obtained from Diane Shockley at 217-782-0450.

Write for Green Talk

While we at the IEPA enjoy writing immensely, **Green Talk** is supposed to be about you, a high school student, and your efforts to protect the environment. If you have an idea for an article or want to submit one you wrote that would be of interest to others, we'll make every effort to print it in our next publication. Please submit articles to Public Information Office, Illinois Environmental Protection Agency, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois, 62794. You can also fax the articles to our fax machine at 217-782-9142. Our phone number is 217-782-5562.

Volume I, No. 3

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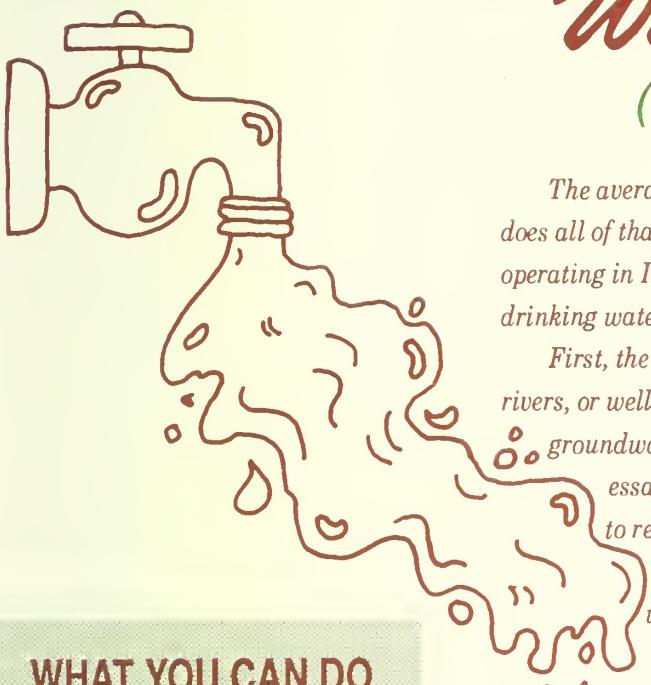


MAY 10, 1994

THE UNIVERSITY OF ILLINOIS
AT SPRINGFIELD

Green TALK

Water Purification (Or Why to Trust Your Faucet)



The average person may use more than 80 gallons of water a day. So where does all of that water come from? Approximately 1,850 water supply systems are operating in Illinois to provide residents with roughly two billion gallons of safe drinking water daily. The purification process is not a simple one.

First, the water is drawn into a treatment plant from a source, like lakes, rivers, or wells. In Illinois, about 130 systems use surface water; the rest draw groundwater from wells. Intake screens keep fish and large debris out. If necessary chemicals such as chlorine, alum, and lime are put into the water to remove impurities, soften the water, and eliminate unwanted tastes and smells. Flouride will also be added, if there isn't enough in the water naturally. Mechanical mixers blend in the chemicals. When this is finished the water is transferred to a large basin. Heavy particles form as the chemicals attach to impurities. These particles settle at the bottom of the basin. From there, the water is sent through beds, usually of sand to filter out any remaining impurities. Chlorine is then added to kill bacteria. Finally, the water is stored in tanks and reservoirs to await distribution through large pipes, through your faucet, and into your glass.

GEC Intern Jennifer Cichowski contributed to this story (See story on back page.)

WHAT YOU CAN DO TO CONSERVE WATER

- ✓ Check for leaky faucets and toilets.
- ✓ Take shorter showers.
- ✓ Install water-saving shower heads.
- ✓ Run washing machines and dishwashers when full.
- ✓ Water the lawn early in the day to prevent excess evaporation.

**The 25th anniversary
of Earth Day is next
April 24. What is your
school planning for
next year's Earth Day?**



SAVE A LANDFILL - DOI

Reduce, Reuse, Recycle!

The number of active solid waste landfills in Illinois has declined from 146 in 1987, to 83 in 1993. Since 1987, the annual amount landfilled has decreased by 9.5 million cubic yards or 19 percent.

At current disposal volumes and capacities, Illinois has between eight and 10 years of remaining capacity.

quick facts on recycling

- ✓ It takes the same amount of energy to make 20 recycled cans as it does to make one new aluminum can.
- ✓ It takes three tons of recycled newspapers to make one ton of paper.
- ✓ Paper made from waste papers instead of virgin wood requires 61% less water and results in 70% less air pollution.
- ✓ Nature recycles a tin can to dust in 100 years, an aluminum can in 50 years and a glass bottle takes one million years.

RECYCLING has been part of American life since colonial times.

During World War II, saving tin cans and grease droppings was considered critical to the war effort. Children went door-to-door to collect paper, aluminum and other recyclables. It was not until the birth of the disposable society in the 1950s that items were thrown away, rather than recycled.

Unfortunately, increased consumption means landfills become limited, alternatives to the "two-point" toss.



RECYCLING offers the most practical and simple start to solving our environmental and solid waste disposal concerns. But recycling is not a cure-all. We may always have some wastes that cannot be recycled.

Recycle Nature's Waste

Constructing a compost heap is a great way to turn your leaves and grass clippings into rich humus, which can be added to soil as a nutrient to improve soil quality.

Beginning the compost is easy. Start with a 12 foot section of fence. Secure three sides and allow the fourth side to open and close as the entrance into the compost heap. Begin adding leaves and grass clippings. You can also add any other organic material.

When the pile grows to about eight inches thick, add a two-inch layer of manure or fertilizer and a two-inch layer of soil. Keep the pile moist as you continue to add layers. Turn the pile occasionally, so it decomposes quickly and completely.

Your compost pile should provide a nice, rich supply of humus to add to the success of your green thumb.



IT'S TIME TO DON'T THROW IT ALL AWAY!

WHAT IS HOUSEHOLD HAZARDOUS WASTE?

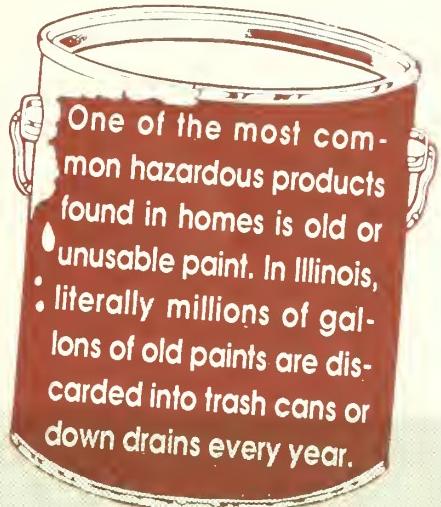
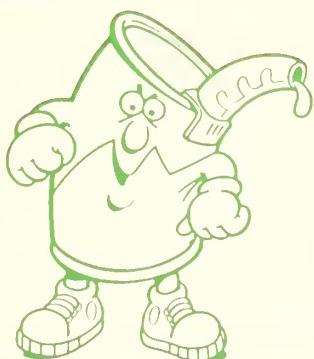
While some members of your family may claim that everything in your room is hazardous household waste, this type of waste actually includes items such as lawn care products, cleaning products, paints, decorating supplies, automotive products, etc. that can become dangerous when used or disposed of improperly. If the items are discarded improperly they can contaminate soil, water, and air. They can also pose a health risk to humans and pets. The disposal of household hazardous waste is a growing problem in many Illinois households. The IEPA defines hazardous waste as corrosive, ignitable, reactive, or toxic.

WHAT YOU CAN DO WITH HOUSEHOLD HAZARDOUS WASTE

- Try to find a neighbor or a local organization that may be able to use the product.
- Store the product in a safe, well-ventilated area until the wastes can be taken to a Household Hazardous Waste Collection event. This ensures that the product will be recycled or disposed of in an environmentally safe manner.

If it is impossible for you to make it to an IEPA collection or to donate the products, here are a few alternate methods of disposal.

 - Paints and Paint Thinners: Mix with kitty litter or oil dry types of absorbent and allow to dry out in a well-ventilated area away from children and pets.
 - Old Motor Oil: Take to service station to be recycled.
 - Old Gasoline: Mix with a fresh gasoline and use for intended purpose.
 - Household cleaners: Dilute with large amounts of water and pour into a sanitary sewer system.



Hand off your household hazardous waste!

Many IEPA household hazardous waste collections take place across the state every year. A long-term collection project is currently underway in Naperville, which allows residents to dispose of their household hazardous waste throughout the year.

Participate in a collection project near you. Watch and listen for announcements of events in your community.

GEC Offers Hands-On Experience

College and high school students from around the state spent their summers gaining insight into how the state agency responsible for protecting our environment does its job.

Fifty students participated in the 1994 Governor's Environmental Corps (GEC) Internship program, which gave them the opportunity to work for the Illinois Environmental Protection Agency. Launched by Governor Jim Edgar, this unique public/private endeavor has offered hands-on learning experiences to high school juniors, seniors and college students.

"Through this program, we hope the students gain a better understanding and knowledge of the various efforts and working relationships between the IEPA and the industries we regulate," said Agency Director Mary A. Gade.

During the spring, students age 17 - 22 are invited to apply for the intern positions. The detailed application requires the students to provide references and a written essay explaining their interest in working in the environmental field. Private industries and businesses donate funds to sponsor the program.

"This year's environmental corps was a blast! I loved working with others who had some of the same interests as me. It also helped me see how to incorporate environmental awareness into a lot of things I do," said GEC intern Niki Strode.

Corporate sponsors of this year's program were: Abbott Laboratories, Amoco Oil, AT&T, Browning-Ferris Ind., Chicago Title, Clark Refining, Coca-Cola, Commonwealth Edison, Dow Chemical, General Motors, Indian Refining, Monsanto, Motorola, Navistar, Olin, Palmer Bellevue Corporation, Quaker Oats, and 3M.

For application information contact David Walters at 217-782-3397.

DUNDEE-CROWN HIGH SCHOOL A GREEN SCHOOL

The Dundee-Crown High School Recycling Program may be the most comprehensive of any school in Illinois. It collects and processes four grades of paper in every classroom and office; aluminum cans from eight locations; polystyrene, plastic bottles, and paper lunch bags in the cafeteria; corrugated cardboard, chipboard, steel cans, six-pack rings, and grease from the kitchen; and glass, motor oil, car batteries, and a few odd and occasional materials from various other locations.

Not only are a wide variety of materials collected, but a very high percentage of the school's recyclables are collected. Cafeteria recycling is consistently in the 80% range. Paper return has exceeded 90%. Actual paper volume is down due to students and staff adopting reduction and reuse habits. The staff have cut usage of weekly less valuable colored paper from 50% to 5%.

Last year for the school's second Earth Week celebration, each day for a full week, a different theme was used to heighten awareness on a variety of issues and honor the Earth. Students and staff showed their spirit by not driving, conserving energy and paper, pledging to the Earth Flag, enjoying an all-school picnic, participating in various demonstrations, and being part of several tree-planting ceremonies.

On another level, students in the Conservation program collected prairie plant seeds to begin a prairie next to the school tree nursery, where they planted 500 native trees for an arbor study, wildlife habitat, and heritage. In addition, students received personal letters of appreciation from local and county government officials, appeared in newspaper editorial columns, received the Fox Valley Land Foundation's "Byways for Wildlife Award" for their significant impact upon the township's vote to preserve 50-100 acres of natural area, and were awarded top honors at the Friends of the Fox Student Congress for their river conservation work. In addition, Kane County designated Dundee-Crown as the Outstanding School Recycling Program.

This year, the recycling, river conservation, and land-use activism will continue. Planned additions will include a vermicomposting (food via worms) demonstration in all of the school district's 18 schools, and yard waste composting. High school students will travel to feeder schools to educate younger students on trees, recycling, and other conservation issues. Storm drains will be painted, streams monitored, trees planted, legislation recommended, community members informed (in English and Spanish), and the Earth Flag will continue to fly at Dundee-Crown High School in Carpentersville.

For more information or to arrange a tour, contact Gary Swick at 708/426-1467.

Q.156.7.005
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DEPOSITORY

JAN 15 1996

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN



Illinois
Environmental
Protection Agency

Office of Public Information
2200 Churchill Road
Springfield, IL 62794-9276

Fall - Winter 1995

Green TALK

WELCOME TO OUR WETLANDS

WHAT IS A WETLAND?

As its name suggests, wetlands are natural, low-lying areas that hold water. Although water is a necessary ingredient for wetlands, some areas do dry out for months at a time.

Wetlands can take many different forms: marshes, swamps, bogs and mangrove swamps. Each have very shallow water and provide homes for many different plants and animals.

Residents of wetlands

Wetlands provide food, shelter and water to their inhabitants. More animals and plants per acre live in wetlands areas than any other habitat. Birds, such as herons, hawks, ducks and geese all occupy wetlands areas for different reasons, but each use wetlands as migration routes for feeding and much needed rest.

Muskrats, beavers, rodents, black bears, white-tailed deer and moose are commonly found mammals in wetlands. Some spend much of their time in the water, like the beaver, while others come to feed on the amphibians and insects that live under water. Deer and moose feed on vegetation around the wetland area.

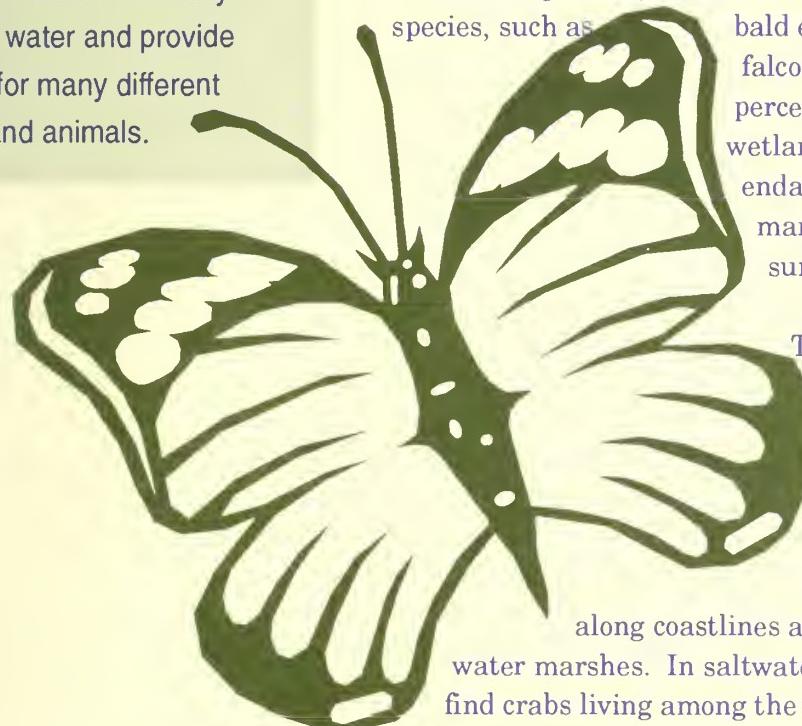
Reptiles, amphibians, insects and other creatures also are a part of the wetland area. Frogs, turtles, salamanders and even alligators can be found.

Most important, wetlands tend to host quite a few endangered species, such as bald eagles, whooping cranes, peregrine falcons and blue butterflies. About 35 percent of all plants and animals that live in wetlands are either threatened or endangered. If all wetlands are destroyed, many or most of these species may not survive.

What do wetlands look like?

There are two kinds of marshes: freshwater and saltwater. Freshwater marshes are the most common; they contain cattails, tall grasses and water lilies. Raccoons, frogs, ducks and geese live among the cattails. Saltwater marshes are found

along coastlines and support tall grasses as well as fresh water marshes. In saltwater marshes, though, you can usually find crabs living among the other marsh animals.



(continued on page 2)

WETLANDS

(continued from page 1)

Freshwater swamps usually have trees and shrubs living around the area, along with turkeys, moose, bears and owls.

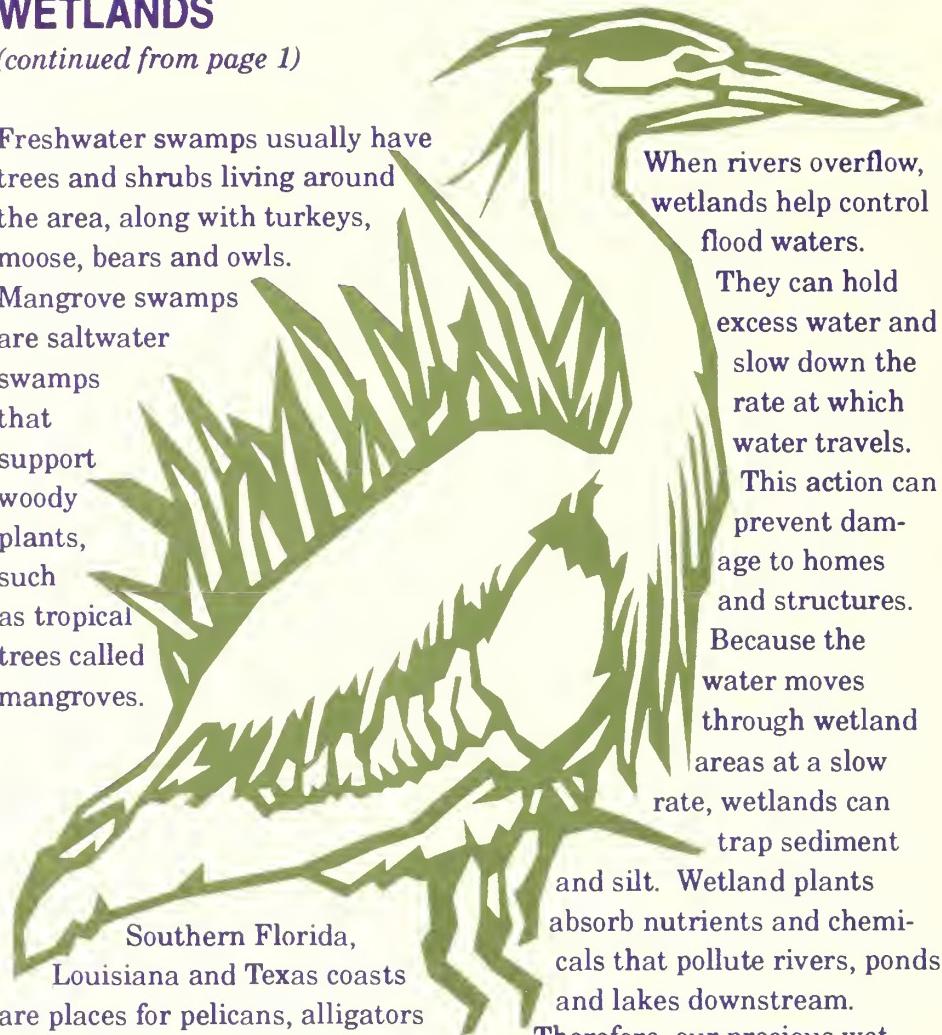
Mangrove swamps are saltwater swamps that support woody plants, such as tropical trees called mangroves.

Southern Florida, Louisiana and Texas coasts are places for pelicans, alligators and sea horses to inhabit.

Finally, bogs are freshwater wetlands that exist mainly in the northern areas once covered by glaciers. One characteristic of bogs is the production of peat. Peat is partially carbonized vegetable material; it can form up to 40 feet thick in a bog. Many frogs and black bears frequent these places.

How wetlands help us

Most of the fish and shellfish we eat live in wetlands when they are young. They find protection from predators and have plenty of food to survive. Wetlands support a multibillion-dollar commercial and recreational fishing industries.



When rivers overflow, wetlands help control flood waters.

They can hold excess water and slow down the rate at which water travels.

This action can prevent damage to homes and structures. Because the water moves through wetland areas at a slow rate, wetlands can trap sediment

and silt. Wetland plants absorb nutrients and chemicals that pollute rivers, ponds and lakes downstream.

Therefore, our precious wetlands can lessen the amount of pollutants that get into our water supply.

These areas also serve as great recreational spots for canoeing, hiking, fishing or bird-watching. To lose these areas would be a tragedy for not only their full-time residents, but for us as well.

Threats to wetlands

Until recently, wetlands were drained at every opportunity because many people believed that swamps and marshes were useless and a waste of space. As a result, over half of our nation's wetlands have been lost, along with various wildlife.

Each year in North America over 700,000 acres of wetlands are lost due to agriculture, land development and pollution. Agriculture is responsible for 80 percent of all wetland losses. Farmers drain wetlands in order to plant crops, even though crops usually don't grow very well in former wetland areas. The draining of wetlands also occurs when building homes and commercial centers.

The final threat, pollution, can overwhelm wetland areas. Although wetlands can clean and filter polluted water, too often industry, agriculture and urban areas produce too much pollution for areas to handle. As a result, many of wetlands' residents die and areas will no longer return to their natural states.

PROTECTING OUR WETLANDS

The government can protect our wetlands from disappearing through:

Acquisition — Government or private conservation groups, such as the Nature Conservancy, can purchase wetlands and create wildlife refuges where plants and animals can live in peace.

Incentives — Government can offer landowners and industries incentives to preserve wetland areas, such as tax exemption for donating or selling wetlands. This saves companies and landowners money.

Regulation — Government sometimes has to protect wetlands through measures. Discharging materials into any wetland areas requires a permit from the U.S. Army Corps of Engineers. Based on The Clean Water Act, the Corps decides if the permit should be granted to develop any wetland areas.

PUTTING A ^{little} green IN THE CURRICULUM

Lake Park High School, Roselle, Illinois, is adding a little green into the curriculum this fall. History teacher Ken Evans and biology teacher Kathy McCarter-Lovelace are teaming up to provide an innovative environmental studies course for juniors and seniors. This new course gives a historical and social perspective on environmental science.

Instead of a textbook, students use information directly from the U.S. Environmental Protection Agency (EPA), the Illinois EPA, Greenpeace, the Nature Conservancy, DuPage and Kane County Soil and Water Conservation Districts, the Sierra Club and the Audubon Society. Students receive hands-on education through field trips and outdoor lab work, such as tree planting and stream monitoring.

Guest speakers from Waste Management Inc., the Itasca Nature Sanctuary and other organizations are scheduled to visit the class. Students are encouraged to use all the presented information to develop their own environmental philosophy rather than adopt the opinions of others. "This is an environmental course, not an environmentalist course," says Evans. In fact, Evans and McCarter-Lovelace debate whether or not an environmental crisis really exists.

Two years ago, Evans wrote a grant proposal to solicit U.S. EPA funding for an environmental studies course. The federal agency turned down the proposal, and the prospect of adding such an integrated course to the curriculum looked bleak. However, Evans made quite an impression on the school district, and the administration gave him the go-ahead to add the course.

Through the support of the administration and student body, the environmental studies course is now a reality with 60 students signed up for each semester. The students' green streak runs a little deeper than just supporting the course. Since 1989, Lake Park students have demonstrated their dedication to environmental issues through their student environmental group, Earth Club. Club members strive to raise environmental consciousness through their newsletter, *Greenpress*, through elementary education programs, and other activities.

Evans hopes the students will take their zeal for saving the environment and invest it in the course. "I hope this course will help make students just a little more sensitive to the overall world environment and their impact on it," says Evans. "Not just in their house, not just in their community, but on the whole world."



"I hope this course will help make students just a little more sensitive to the overall world environment and their impact on it."

YOUR CAR AND THE ENVIRONMENT

Air Pollutants: The Environmental Protection Agency has established standards for these air pollutants to ensure human safety. Most of these air pollutants tax the respiratory system and make breathing and physical activity difficult.

Ozone (O₃): This colorless gas protects us from the sun's rays high up in the stratosphere, yet it is harmful when it forms near the ground.

Ground-level ozone, commonly known as smog, is formed when industrial pollutants and fumes from gasoline and paint combine with sunlight. Hot, sunny days with a light wind are prime conditions for ozone smog to form.

Carbon Monoxide (CO): This odorless and colorless gas comes from automobiles primarily, but

other vehicles also produce CO. Breathing troubles, dizziness, headaches and fatigue are a direct result of CO.

Nitrogen Dioxide (NO₂): As a light brown gas, NO₂ can produce smog and acid rain.

Vehicles and industrial sources produce this potentially harmful gas.

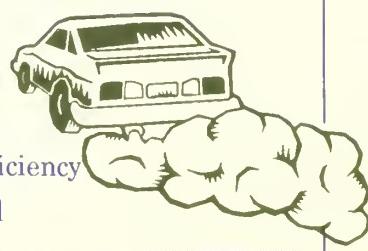


Particulate Matter: Combinations of solid matter or liquid droplets from smoke and other industrial emissions can damage paint, clothing and decrease visibility.

Sulfur Dioxide (SO₂): This colorless gas is produced by industrial sources, such as oil refineries, paper mills and chemical plants, but apartment house boilers and furnaces also emit SO₂. This gas is anything but odorless at high concentrations.

DRIVING TIPS FOR A GREENER ENVIRONMENT

- Plan and organize driving trips before you hit the road
- Ride share or use public transportation if available
- Use energy-conserving grade of motor oil (EC Grade)
- Drive at a medium speed (55 rather than 65 miles per hour)
- Drive at a steady speed
- Stop and start evenly
- Don't idle the engine too much
- Travel light; less weight equals more fuel efficiency
- Follow instructions in your owner's manual



MAINTENANCE

- Don't remove or tamper with pollution controls
- Get regular check-ups for engine and general maintenance (every three months)
- Make sure tires are properly inflated
- Keep car filters and catalytic converters clean
- Use air conditioners wisely, efficiently: air conditioners reduce gas mileage by 20 percent
- Buy fuel-efficient cars

When buying a used car, ask questions about the car. For example, when was the last time the car was inspected? Does the car meet emissions standards? If not, the emissions control system may need to be repaired—this could be costly.

Hydrocarbons (HC): These gases are emitted into the air through the use of gasoline. They form with industrial pollutants and sunlight to form ozone smog.

Lead (Pb): Car batteries, fuels, paints and household plumbing pipes are sources of this contaminant, which is dangerous if inhaled. Fuel and paint are no longer carriers of lead; lead pipes are now being replaced with plastic and copper ones.

Asbestos: This indoor air pollutant can only be harmful if it is friable, in other words, little bits of the asbestos material have to be floating around in the air. Asbestos was used because it could withstand great amounts of heat; it is still used in some industrial facilities that need the great heat resistance.

Stratospheric Ozone Depleters: Chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform were used in refrigerators, air conditioners and other cooling processes.

Manufacturers are moving away from using these substances.

Greenhouse Gases: Carbon dioxide (CO₂) from cars, methane (NH₃) from landfills, and nitrous oxide (NO₃) from industrial sources may cause climate change, but this is still uncertain. Nevertheless, some people believe these gases could possibly melt polar ice caps and cause sea levels to rise.

Exhaust from automobiles is a major contributor to air pollution. Many of you are learning how to drive or will learn soon. When you start driving, there are some things you should know in order to reduce air pollution and help your car run smoothly.

Gasoline:

- The Stage II Vapor Recovery System uses a specially designed nozzle to collect and control the release of gasoline vapors. This system will reduce ozone smog, limit exposure to toxic compounds and conserve energy.

- As of this year, reformulated gas line is available at service stations in the Chicago area. The new, cleaner gasoline produces 15 to 17 percent less pollution than conventional gasoline.

- When pumping gas, pump slowly in order to reduce the amount of fumes released.
- Avoid “topping off” the tank. When the pump stops, the tank is full, excessive pumping can increase vapors.
- Replace the gas cap tightly.
- Use the required octane level of gasoline: 87, 89, 90 or 92.



Emissions Test: The Clean Air Act requires cars in the Chicago and St. Louis Metropolitan East areas need to have their cars tested every two years. This ensures that the air emissions do not exceed the federal health standards.

INSIDE YOUR CAR

- **Fuel system** (carburetor or fuel injection) mixes air and gasoline, but a weak mixture produces excess hydrocarbons, and a strong mixture gives off HC and CO.
- **Cylinders** compress air-fuel mixture to a high temperature. Any leaks in the cylinders waste fuel and cause HC emissions.
- **Catalytic converter** helps change HC, CO, and NO₂ into CO₂ and water.
- **Spark plugs** ignite air-fuel mixture; dirty or worn, plugs reduce engine power and increases HC emissions.
- **Air filter** cleans the air entering the engine; if dust and grime are present, engine parts wear rapidly and CO emissions increase.
- **Ignition system** sends an electrical pulse to plugs; if the pulse arrives early or late, harmful emissions increase and fuel efficiency drops.



Too Cold to Compost?

HOW TO BUILD A WORM COMPOSTING BIN

Bin: If you chose a plastic or wooden container, make sure to drill holes in the top, bottom and sides of the bin for adequate aeration.

Bedding: Begin with shredded newspaper, paper should be damp but not dripping with water. Cardboard, peat or brown leaves also make good worm bedding.

Food Wastes: Kitchen scraps should be buried in the worm bin bedding. Be sure to rotate your food scraps around the worm bin. After four to six weeks push the composted material to one end of the bin and add fresh bedding. Again bury kitchen wastes in new bedding.

Compost: You may remove small amounts of compost from the bin and place the rich compost on house plants, wait until the worms have produced a significant amount of compost to apply to your garden.

Worm Bin Location: Keep your worm bin in a cool spot in the summer such as under a tree or in your basement or garage. Be sure to move your worms out of freezing weather during the winter months. Don't worry: A properly maintained worm bin is odorless.

TRY INSIDE

Composting is a great way to naturally recycle kitchen scraps and yard wastes by returning them to the earth. In winter months, composting can be a dreaded chore, but there is a technique that allows you to compost indoors—vermicomposting.

Vermicomposting is an easy, efficient way to get rid of your leftovers and get rich fertilizer in return. Simply construct a bin, add your waste, and don't forget the most important ingredient—WORMS! That's right, earthworms help the waste decompose.

In the 1970s, waste management practices were costly and took up a lot of landfill

space. Industry had to find cheaper practices to dispose of waste. In Ontario, California, municipal-waste facilities experimented with disposal methods. Receiving an outlandish amount of municipal waste a day, they had to do something. By using worms in the compost, 90 percent of organics had been consumed in 68 days!

Through vermicomposting, organics are not landfilled where it can take a long time for them to receive enough oxygen to decompose. This unique practice saves landfill space and leaves you with useful, rich fertilizer for other plants to enjoy.

ENVIRONMENTAL CLUB SPONSORS

We would love to add your school to our list of environmental club sponsors. If your school does not have an environmental club, but is environmentally active, we would love to hear about what you are doing. Please contact our office at 217-782-5562 or write us at Illinois EPA 2200 Churchill Road P.O. Box 19276 Springfield, Ill. 62794-9276.



Addison Trail High School
Addison, Ill.

Benet Academy
Lisle, Ill.

Community High School
West Chicago, Ill.

Downers Grove North High
School
Downers Grove, Ill.

Downers Grove South High
School
Downers Grove, Ill.

Driscoll Catholic High School
Addison, Ill.

Dundee Crown High School
Carpentersville, Ill.

Fenton High School
Bensenville, Ill.

Glenbard East High School
Lombard, Ill.

Glenbard North High School
Carol Stream, Ill.

Glenbard South High School
Glen Ellyn, Ill.

Glenbard West High School
Glen Ellyn, Ill.

Hinsdale Central High School
Hinsdale, Ill.

Hinsdale South High School
Darien, Ill.

Immaculate Conception High
School
Elmhurst, Ill.

Lake Park High School - East
Campus
Roselle, Ill.

Lake Park High School - West
Campus
Roselle, Ill.

Lemont High School
Lemont, Ill.

Lisle Senior High School
Lisle, Ill.

Lyons Township High School
Western Springs, Ill.

Montini Catholic High School
Lombard, Ill.

Naperville Central High School
Naperville, Ill.

Naperville North High School
Naperville, Ill.

Niles West High School
Skokie, Ill.

Oak Park/River Forest High
School
Oak Park, Ill.

Rolling Meadows High School
Rolling Meadows, Ill.

St. Francis High School
Wheaton, Ill.

Timothy Christian High School
Elmhurst, Ill.

Warren Township High School
Gurnee, Ill.

Waubonsie Valley High School
Aurora, Ill.

Westmont High School
Westmont, Ill.

Wheaton North High School
Wheaton, Ill.

Wheaton Warrenville South High
School
Wheaton, Ill.

Willowbrook High School
Villa Park, Ill.

York High School
Elmhurst, Ill.

BETCHA DIDN'T KNOW...

The Illinois EPA produces a monthly cable television program, "Your IEPA Today," that explores many different environmental issues. In addition to airing on 25 cable systems across the state, we feel the programs can serve as a valuable educational tool. The following is a list of topics available in VHS format:

- Air Monitoring
- Atrazine (farm chemicals) and the Drinking Water Supply
- Hazardous Waste Cleanups
- Noise Pollution
- Pollution Prevention; Public Private Partnerships
- Tire Shredding and Cleanups
- Asbestos
- Biological Stream Sampling
- Flood Control (great flood of 1993)
- Household Hazardous Waste Collections
- Ozone
- Stage II Vapor Recovery (gasoline emissions)
- Vehicle Inspection Maintenance Program

We would love to hear your input! If you have suggestions for future programs, let us know.

Send your ideas or requests for any of the programs listed to:

Illinois EPA
Video Department
P. O. Box 19276
Springfield, Ill. 62794-9276

Green TALK

Illinois Environmental Protection Agency
2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

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Green Talk

DEPOSITORY
JUN 20 1996
UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

MACOMB HIGH SCHOOL goes the Extra Mile

INSIDE THIS ISSUE

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Many high schools across the state are going green; most have an environmental club of some sort, but very few have achieved what Macomb Junior Senior High School (MJSHS) has. Located in western Illinois, MJSHS began its environmental commitment in the classroom. For three years, its Human Ecology course has promoted environmental issues; namely, how we as humans affect and are effected by the ecosystem.

Instructor Cathy Palm-Gessner believes she is educating parents as



well as students. "I feel real fortunate to work with such a dedicated group of teenagers. They take the information home and share it with their parents; through this class we are educating the whole Macomb population."

Outside the classroom, the Ecology Club is involved with community affairs. Members show their environmental commitment by participating in Earth Day fairs and nature hikes, but the most powerful demonstration came through their lobbying efforts last year. Students aired their concerns over the absence of a curbside recycling program in Macomb, and their pleas convinced the Macomb City Council to implement one. Thanks to the students of MJSHS, Macomb residents can now leave their recyclables at the curb.

(continued on page 2)

Macomb Ecology Club members find environmental information in cyberspace thanks to a grant from National Public Radio.

Attention Teachers and Students

If you are interested in starting an environmental club in your school, give us a call for help. We can provide ideas and any educational materials you might need.

If you already have an environmental club, let us know what you have been doing. Each issue of GreenTalk features one or two high schools. By sharing ideas, other schools can learn how to help protect the environment.

Please contact us with your efforts and activities, by writing to:

GreenTalk
2200 Churchill Road
P. O. Box 9276
Springfield, Illinois 62794-9276

Thank you for all your continued efforts and we look forward to hearing from you. Remember, if everyone protects the environment a little, the return will be great!

(continued from page 1)

Outside their community, Club members participate in two different river monitoring programs — Illinois Riverwatch and Illinois Rivers Project. Through Illinois Riverwatch, students are trained to become "citizen scientists," in which they collect and identify macroinvertebrates in the LaMoine River. By determining the number and diversity of organisms, the level and types of pollution can be identified.

Students also monitor for nitrates, phosphates and other chemicals through the Illinois Rivers Project, sponsored by Southern Illinois University at Edwardsville. The Project includes 300 schools from 35 states and Canada. Students submit their data to the U.S. Fish and Wildlife Service and the Illinois EPA.

MJSHS has also received grants to further its efforts. The

Human Ecology class is now hooked up to the internet thanks to a grant from National Public Radio (NPR). Students participate in NPR's Science Friday Kids Connection, which allows students to ask scientists environmental questions. Students can also follow legislation by connecting with the Capitol Building directly; this connection seems to be a better resource than a library. In addition, MJSHS has a home page where its environmental efforts are listed for those who are interested.

The Ecology Club also received a Project WILD Action Grant, given by Illinois Department of Conservation and the Environmental Education Association of Illinois, that allowed students to plant a natural prairie garden on school grounds for all to enjoy. The students used natural prairie plants to emphasize the importance of maintaining and encouraging wild growth. Prairie plants require less care and provide food for birds and butterflies.

From cyberspace to Illinois' riverbanks, Macomb Junior Senior High School is the epitome of environmental stewardship. The students take our environment seriously and are diligently working to save it for the future.



Macomb students show it takes more than one person to demonstrate the complicated process concerning groundwater.

Small Businesses Get a Clean Break

In April 1995, the Illinois Environmental Protection Agency (EPA) and the Illinois Department of Commerce and Community Affairs (DCCA) launched an innovative new pilot project to help small businesses comply with environmental laws in the Rockford area. The program, called Clean Break, allowed businesses to anonymously receive assistance in meeting environmental regulations and to avoid any penalties associated with possible violations, otherwise known as granting "amnesty" to these businesses.

Businesses with 200 or fewer employees were eligible to take advantage of this opportunity. Approximately 400 small businesses inquired about the program through a toll-free number advertised to the business community by DCCA.

Companies that called were assigned a number and were known by that number, not their name. Each company was assigned a client manager, who acted as a liaison between the company, and the client service team, made up of representatives of the Illinois EPA, DCCA and the Rockford Chamber of Commerce. Meetings between the company, client manager and client service team were scheduled either via the phone or in person.

At these meetings, companies divulged what kind of company they were, such as a printer, metal plater, or autobody/ repair shop. From this information, Illinois EPA representatives were able to identify potential environmental concerns and provide remedies to them.

On Jan. 1, 1996, the Clean Break Amnesty Program was expanded statewide to serve autobody/auto repair and printing businesses. The Illinois EPA intends to serve other kinds of businesses through Clean Break as well after the conclusion of the initial expansion phase on June 30, 1996.

The Clean Break Amnesty Program was suggested by a task force set up by Gov. Jim Edgar to help small businesses work with government agencies. Edgar felt something had to be done to help small businesses through the maze of environmental laws. A great number of small businesses exist in Illinois, so helping them come into compliance should make a big difference in the amount of pollution generated.

The Clean Break Amnesty Program is an innovative way to build partnerships between government and business. This is an exciting step in the right direction. Only through working together can we find the right solutions to balance economic and environmental concerns.

SMALL BUSINESS OWNERS IN FAVOR OF CLEAN BREAK

The businesses that participated in Rockford agreed that keeping the environment clean is of the utmost importance. They also felt that if they could do anything to help in that mission, they were more than willing.

- Ed Myers, Northern Star Plating: "Through Clean Break, you could bear your soul without consequences, and you don't get many chances to do that. There's not a good reason not to participate, since anonymity is there if you choose to use it. It's a win-win situation."
- Bob Long, Performance Products, Inc.: "They wanted to work with me, that was the key. They were like family."
- Tim Gaston, AAA Gaston & H.T. Gaston: "It was a very positive experience, we found it very refreshing. Imagine, a government agency wanting to help us. How could we say no?"



Through the Clean Break Program, the Illinois EPA offers printshops an opportunity to get much needed help in following environmental laws.

Earth Day Trail Hike is Good Exercise For a Clean Environment



Boy Scouts and leaders collected more than 10 cubic yards of refuse on the Lincoln Heritage Trail.



The Illinois EPA lent a hand at this year's hike by signing in the troops. Each Participant got a bag to collect trash on the trail.

Boy Scouts of America from around the nation hiked the 20-mile Lincoln Heritage Trail, from New Salem to Springfield, for Earth Day. Not only did the Boy Scouts and adults get a good workout, but the grounds around the trail got a good cleaning. Along the trail, Boy Scouts and leaders spent time picking up litter to beautify the land.

In 1926, the Lincoln Trail Hike medal was created to award those Boy Scouts who successfully completed the Lincoln Heritage Trail. Boy Scout officials hoped that the participants gained the wisdom and perseverance that Abraham Lincoln derived from walking from New Salem to Springfield in search of a better life. Since 1926, more than 75,000 youth have retraced Lincoln's steps.

The trail itself closely follows the original path Lincoln walked,

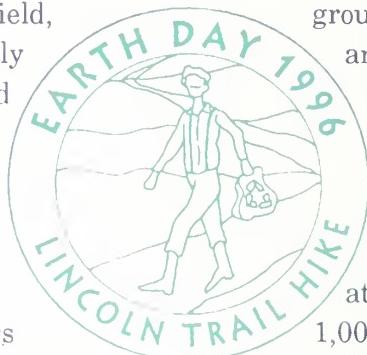
but it keeps hikers on secondary roads, byways and trails in order to preserve the actual path. The grounds around the trail are very scenic and the Boy Scouts aim to keep it that way.

Last year, the program celebrated its 50th anniversary, attracting more than 1,000 hikers from places as far as California. Scouts and leaders collected a total of 10 cubic yards of refuse, approximately 40 pounds of aluminum, 10 tires and several car batteries. The garbage was hauled away, the aluminum was recycled and the tires and batteries were properly disposed of.

This year's event proved to be more successful than last year's. Springfield's Boy Scout office received inquiries from places as far away as England. The participants started as early as 6 a.m. and ended at 6 p.m. But, volunteers from the Illinois EPA started at 5 a.m. to set up Gatorade and water oases for weary hikers.

When the day's hike was done, everyone involved was able to rest a little bit easier knowing Lincoln's trail got its yearly spring cleaning.

This year, hikers were not the only participants, many scouts



brought their off-road bikes. In order to get more exercise, the bike riders left New Salem State Park and doubled back when they reached Springfield. Even though they rode their bicycles, these scouts still managed to pick up a few stray cans and paper.

There were six rest stops in total to give the weary travelers much-needed breaks. At the second to last rest stop, each participant got his/her hand stamped in order to receive a patch designed by Illinois EPA.

Some walked the trail for the exercise, whereas others just wanted to acquire the unique patch. One group from Mt. Pulaski used this hike as training for the annual hike through the rugged terrain of the Philmont Scout Ranch in New Mexico. Each member of the troop wore

full gear while hiking under the intense sun. Central Illinois may not be as hilly as New Mexico, but the trail has quite a few twists and turns.

Whatever the reason for participating, one thing remained perfectly clear, everyone wanted to keep the historical trail clean. And when the day's hike was done, everyone involved was able to rest a little bit easier knowing Lincoln's trail got its yearly spring cleaning.



Two Boy Scouts gave up the use of their walking stick to carry in a tire left at the side of the road.

STAYING IN THE Summer Sun

Ground-level ozone (smog) is a type of air pollution the Illinois EPA deals with closely, especially in the Chicago area. When summertime comes, levels of ozone increase as high temperatures mix with emissions from industry, gasoline-powered engines and consumer products. There is also another kind of ozone, 35,000 feet up in the stratosphere, that protects us from harmful ultra-violet (UV) rays. The depletion of this ozone layer presents problems for those exposed to the sun.

SUN TIPS

- * **Minimize sun exposure.** Limit exposure during 11 a.m. and 3 p.m. when the sun's rays are strongest.
- * **Use sunscreen.** Apply SPF 15 or higher frequently.
- * **Wear UV protection sunglasses.** UV rays can cause eye problems, such as cataracts.
- * **Cover up.** Wear a hat and shirt for protection from strong rays.
- * **Be aware of reflected UV rays.** On the beach, water and sand can reflect harmful UV rays, even under hats and umbrellas.
- * **Use caution in tanning parlors.** Artificial UV rays can be just as damaging as sunlight, so use good judgment as to how long you stay under the lamp.
- * **Don't be fooled by clouds.** Even if the sun disappears, UV rays can penetrate through clouds.

Reusing a Natural Phenomenon

Did You Know...

Methane is a greenhouse gas, but it is a valuable source of energy.

Methane gas cycles through the atmosphere 20 times faster than carbon dioxide.

Forty percent of methane gas comes from decomposing waste in landfills.

Every landfill produces enough methane gas to power 10,000 households.

Out of 700 landfills that are able to capture methane gas, only 115 actually do.

Settler's Hill Landfill in Batavia, Illinois has eight miles of underground pipe to capture the methane gas.

Methane gas has to be burned at 3,000 to 3,500 degrees Fahrenheit to provide energy.

Landfill gas can still be recovered 20 years after a facility closes.

President Clinton has included methane gas recovery as part of his Climate Change Action Plan.

Landfills have been around for years to collect municipal solid waste. When waste decomposes, methane gas, volatile organic compounds, substances that cause smog, and other air toxics are produced. Methane gas, a greenhouse gas, has been considered hazardous because of its explosive nature. Unfortunately, the production of methane gas is inevitable, but now there is a way to capture this gas and turn it into efficient energy.

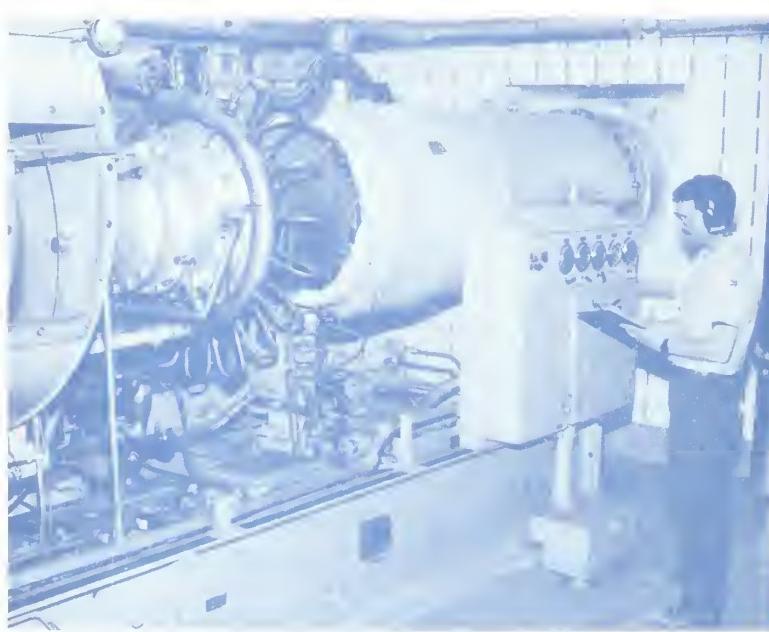
The U.S. Environmental Protection Agency (EPA) estimates that 750 landfills exist across the nation. The gas produced from these landfills could produce enough electricity to power 3 million homes. By using methane as energy, the reduction in greenhouse gas emissions would be equivalent to taking 14 million cars off the road. In addition, turning this landfill gas into energy prevents additional pollution, such as sulfur dioxide.

According to the U.S. EPA, there are currently 120 energy recovery projects across the country. These projects capture methane in one of four ways: conversion to electricity through combustion engines and turbines; injection into natural gas pipelines; direct use in industrial processes and greenhouses; and compression for vehicle fuel. These processes are complicated, but the bottom line is that they reuse the landfill gas that would normally be emitted into the air we breathe.

Not only does recapturing landfill gas help the environment, but it also saves money. A case in point is Glendale, Calif. The City of Glendale will receive \$40 million in benefits during the first 20 years of operation, including lower fuel costs and royalties. Glendale successfully piped methane gas from a land fill 5.5 miles away to generate enough electricity for 30,000 homes. They use about 8 million cubic feet of landfill gas each day.

The American Telephone & Telegraph's (AT&T) manufacturing facility in Columbus, Ohio uses about 1 million cubic feet of landfill gas per day to fuel its boiler. The steam from the boiler provides space heat and hot water for the facility. This practice has saved AT&T \$120,000 per year in fuel costs.

The landfill gas recapture program is recycling at its best. Not only are harmful emissions eliminated, but utility companies, industries and local governments can reap financial benefits. This program is a win for the environment *and* for business.



Methane gas is sucked through a pipe from the landfill into a turbine engine seen above. In this engine the gas is converted into electricity.

Partners For Waste Paint Solutions

The Illinois Environmental Protection Agency (EPA) holds numerous household hazardous waste collection events around the state every year. Residents are able to safely dispose of household products instead of sending them to the landfill. Throughout the years, the Agency has collected more paint than any other product. In order to handle the large amount of leftover paint, retailers are now partnering with the Illinois EPA to recycle it.

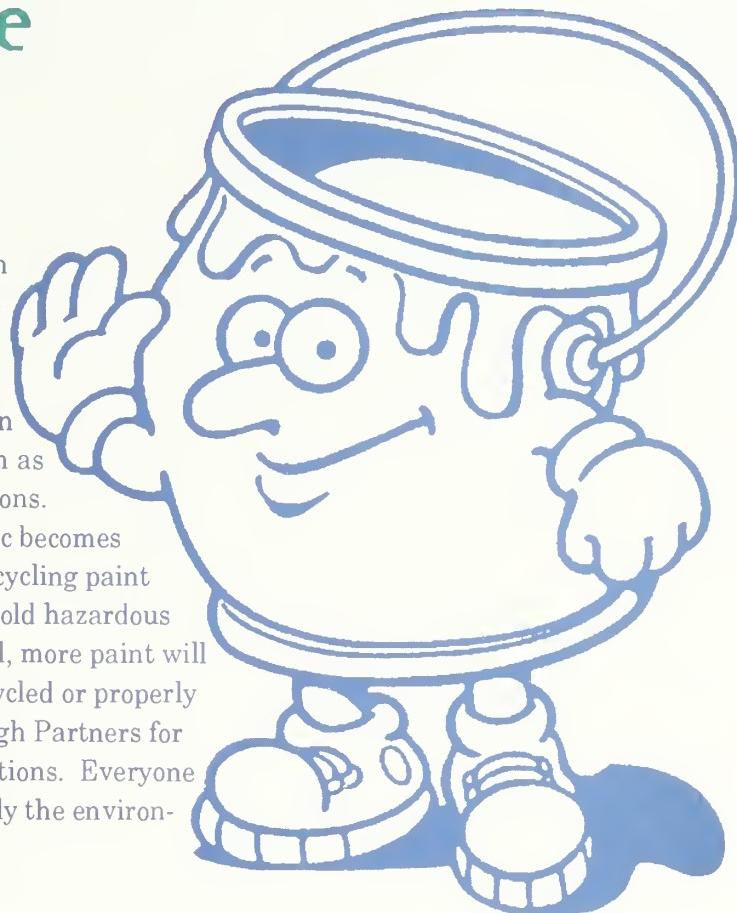
Retailers volunteer their facilities to collect either latex or solvent-based paint, or both. The Illinois EPA first ensures adequate storage space at the facility; then, Agency officials explain clean-up procedures and provide signs to ensure safe disposal and storage.

When the facility is ready, consumers can bring in usable or unusable paint for reformulation and reuse or disposal. First, the retailer staff determines if the paint is acceptable or not. If paint is mixed with any other kind of material, it will likely be unacceptable. Second, if the paint is recyclable, staff members empty and scrape the drums to remove as much paint as possible. When dry, the drums are collected for recycling by the Illinois EPA.

If the paint is unacceptable, it is placed in Illinois EPA-provided containers and collected by the Agency.

Through this waste paint program, the Illinois EPA develops

partnerships with area paint stores. In addition, the retailers can use their participation in such a program as good public relations. In turn, the public becomes more aware of recycling paint and other household hazardous wastes. Above all, more paint will be recovered, recycled or properly disposed of through Partners for Waste Paint Solutions. Everyone benefits, especially the environment.



Paint is the most popular item collected at household hazardous waste collection events. Now, retailers are taking back the paint they sell to help reduce improper disposal.

Green TALK

Illinois Environmental Protection Agency
2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

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Winter 1998

Green TALK

An Environmental Newsletter for High School Students and Teachers

EAGLE SCOUT PLANTS DEEP-ROOTS

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Anthony Scully knew he would someday earn his Eagle Scout rank, but he never dreamed he would be involved with his local village, a federal agency and county agency, the local park district and with about 70 volunteers in order to accomplish it. Anthony, a 15-year-old sophomore at Conant High School in Elk Grove Village, originally decided he wanted to do a cleanup project in his community to earn his rank. Instead, he ended up planning and developing a planting project that

will help stabilize and beautify a portion of Salt Creek in his hometown.

According to his mother, Pam, Anthony started out with a simple idea. But with his father also involved in Scouting and about to become a Scoutmaster, "Anthony knew he couldn't just get by with a simple project." So, Anthony contacted Nick Nikola with Friends of Critters in Salt Creek to begin looking into potential projects.

"I like creeks and their (surrounding) area," says Anthony. "It's interesting how everything works. I got a soil and water conservation merit badge for it (the project)."

Although Anthony had never done a native planting project, he was eager to learn.

"Everything was pretty new, and I liked it!" he said. That was in January of this year when he first spoke with Nikola who then guided Anthony to contact Rick McAndless at the North Cook County Soil and Water

(turn to page 2)

Anthony Scully's efforts led to this prairie and creek bank stabilization in Elk Grove Village.



CREATE YOUR OWN PRAIRIE

If you're interested in planting native grasses or prairies, environmental researcher and former teacher Peggy Dunn offers some web sites to visit.

The Diversity of the Midwest Prairie
<http://www.consciouschoice.com/issues/cc083/prairiesb.html>

Rebuilding the Prairie
<http://homepage.interaccess.com/~wali/cfel;2cat/becker95.html>

The Beauty & History of the Prairie
<http://www.visi.com/~cindy/prairie.html>

Illinois Prairie Page
<http://www.elnet.com/~prairie/index.html>

Prairie Restoration and Resource Guide
<http://www.utexas.edu/depts/grg/ustudent/gcraft/fall95/issues/telkes/telkes.html>

Midewin National Tallgrass Prairie
<http://www.fs.fed.us/mntp/>

Public Prairies of Missouri
<http://www.state.mo.us/conservation/nathis/flora/prairies/intro.html>

Prairie Forbs
<http://www.state.mo.us/conservation/nathis/flora/forbs/forbs.html>

Forbs Page
<http://sgs.cnr.colostate.edu/data/plants/pforbs.html>

Methods of Installation for Prairie Wildflowers
http://www.hort.purdue.edu/wildflower_techniques.html

Links About Prairies
http://www.inhs.uiuc.edu:80/~kenr/my_home.html#prairielinks

SCOUT...(CONT'D FROM P.1)

Conservation District (SWCD). "Rick McAndless began talking to Anthony about Salt Creek and informed us that there had been a lot of soil erosion. He (McAndless) was interested in getting involved," said Nikola. The SWCD explained that there would

Through his many meetings, Anthony recruited a committee of five experts to meet with him twice a month for the planning and execution of his project.

"I don't think he knew what he was getting himself into," recalls Pam. "It was more than just getting seeds. He had to send letters, make phone calls, prepare agendas for meetings. Then he had to let the grownups talk and offer suggestions." It turned into a project of more than 450 accumulated hours.

After the plans were approved, Anthony began to prepare the land and to choose plants. "We had a grader come in to clear the bank and shave it to a slope," recalls Anthony as he leafed through his journal. "It was a two-to-one slope, one foot down for every two feet, (where) plants could grow and people could walk."

The first planting took place in May. The seeds and plants had been carefully chosen to suit the region, the stream area, and sunlight conditions. Anthony and the committee decided to use a combination of seeds and plugs.

Anthony Scully earned his Eagle Scout rank with his creek restoration project.

be a lot of legwork on Anthony's part and that he should set up a meeting with the agencies involved.

Because of the nature of the project, Anthony needed to check on what permits needed to be obtained. But he did his homework—checking at the library and a local nursery on types of native plants that could be used in the area. He presented his ideas to the U.S. Army Corps of Engineers, the county Soil and Water Conservation District, and the Elk Grove Village Board.

"I DON'T THINK HE KNEW WHAT HE WAS GETTING HIMSELF INTO," RECALLS PAM.

On the first five feet, the crew of volunteers planted Prairie Cord grass, Blunt Spike rush, yellow cone flower, Virginia Wild Rye, Black-eyed Susan among others.

(turn to page 6)

TAKE A "LEAP"



Want to get a jumpstart on your next science project? Have a great idea for a class science trip to a lake or river, but no funds behind it?

You may not have heard about the recent implementation of the "Lakes Education Assistance Program" (LEAP), but it is one of the offshoots of the Conservation 2000 bill signed by Gov. Jim Edgar in 1995.

The program was designed to assist schools, teachers and students in the study of lakes and lake watersheds. Under the coordination of Steve Kolsto in the Illinois EPA's Bureau of Water, LEAP developed out of a need that Steve saw on one of his many visits to a classroom.

"I was visiting a science classroom in Carlinville and noticed they had nets and monitoring equipment to study at nearby Bear Dam State Park Lake," recalls Steve. "I was impressed that the school had put funds into this, but soon learned that the teacher had paid for all of it out of her own pocket."

That teacher's kind of dedication led Steve to coordinate the LEAP program last year. The Conservation 2000 bill set aside \$50,000 for watershed education, which made it possible for 130 proposals across the

state to get off the ground and into the nearest watershed. Last year, the program funded almost \$33,000 in proposals.

According to Steve, the best part of LEAP is that there are few limitations for ideas, as long as

"I WORK IN A SCHOOL DISTRICT WITH VERY LITTLE FUNDS FOR THINGS OF THIS SORT. SO THIS IS GREAT AND MUCH APPRECIATED!"

the project is watershed-related. One part of the program provides funding up to \$200 for teacher/youth participation in lake/watershed-related field trips, activities, teacher seminars and workshops. Equipment for watershed studies such as hip waders, test tubes for studying water samples or chemical equipment may qualify. Even monies to hire substitute teachers or buses to make field trips possible may be eligible for funds.

LEAP projects range from supplementing a classroom's library with lake-related books, to actually

One class puts funds to use in a field trip as they LEAP into new discoveries at a local pond.

building a small lake ecosystem on school property to promote continual lake study.

In less than two years, LEAP has already generated many appreciative supporters. Mike Ellis, a teacher from Rochelle, writes, "I work in a school district with very little funds for things of this sort. So this is great and much appreciated!" And Ann Limestall, a teacher in Waterloo, commented, "Thank you Illinois EPA for the grant to purchase a kit to do surface water testing. We have already started using the kit to test the city of Waterloo's lakes which previously were used as our water supply but now are to be used for recreational purposes. I really appreciate your support and plan to get a picture and article in our local paper. Thank you!"

To learn more about LEAP or to receive an application, contact Steve Kolsto in the Illinois EPA's Bureau of Water at (217) 782-3362.

Portions reprinted from "Watershed Watch" newsletter, written and edited by Christy Trutter, Illinois EPA Bureau of Water.

Green Talk
Winter, 1998

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INTERNS SUMMER IN GOVERNOR'S ENVIRONMENTAL CORPS

For the last six years, the Illinois EPA has partnered with the private sector to support the Governor's Environmental Corps (GEC) Summer Internship Program. This summer, 13 corporate sponsors supported 39 college students and graduating high school seniors who were placed throughout Illinois EPA programs including all seven regional offices.

Hands-on summer activities for the interns included collecting and identifying macro invertebrates in

"THEY'RE VERY EAGER TO LEARN AND TO MAKE A MEANINGFUL CONTRIBUTION TO THE AGENCY."

Illinois' rivers and streams, entering data into the Geographical Information System and aiding with collection of air monitoring data. The nine-week paid internships allow students to learn first-hand about environmental issues and careers and to improve professional skills.

According to program co-chair, Kurt Niebergall, the students also offer the Agency much more than hard work. "They bring with them a lot of energy, enthusiasm and creativity. They're very eager to learn and to make a meaningful contribution to the Agency."

In return, the students leave with experience they might not have been able to obtain otherwise. Brandy



GEC's help junior GEC's learn about trees at girl scout camp.

Emery, a chemistry major who had the opportunity to work in the IEPA Laboratory in Springfield, agrees. "It gave me an idea of what I want to do with my chemistry degree," she said.

Brett Worth, another GEC in the same lab, also liked applying what he had learned in the classroom. "I'm getting my degree in chemistry, so a lot of the sample preparations and extractions I've done, will help me in my career," he said. "I've also gotten a better perspective on what environmental chemistry is and what the Environmental Protection Agency is as a whole."

Not all of the placements are in one single area. Law student Melissa Paul found herself working with three different mentors. "I did everything

from learning how to facilitate and develop a training course, come up with a budget, construct a strategic plan and working with the Junior GEC's (see related article) educating kids on the environment. I think it was beneficial for them and for us."

Aside from practical and professional experience, GEC's may also find they gain personal development experience. "I've learned how to assert myself," says Kathryn Ardiente. "And you need that in the business world. It's just been a great experience for me."



Checking water quality at Lincoln Memorial Gardens.



Participants find they have their hands full with worm composting.

INTERNS FIND HOT WEATHER EXPERIENCES "COOL"!

During last summer's sizzling temperatures, 13 interns in the Governor's Environmental Corps (GEC) program at the Illinois EPA kept their 'cool' by helping at several youth camps in central Illinois. The interns gave hands-on environmental demonstrations as part of the "Junior GEC" program for approximately 650 Springfield area students at Girl Scout and Boy Scout camps, the Nelson Garden Ecology Camp, the YMCA Outreach program and Lincoln Memorial Garden Ecology Camp.

The Junior GEC activities focus on protecting Illinois' air, water and land resources. Not surprisingly, some of the most popular activities involved... WATER!

Water Critters, The Long Haul, Biodiversity Safari and several other activities had students

enthusiastically seining for crawdads and mayflies, hauling buckets of water, going on a city park "safari," meeting an earthworm up-close and personal and demonstrating the water treatment process.

The goal of the Junior GEC is to instill a sense of wonder and stewardship for the earth by involving students with their local environment, and to have fun!

The Junior GEC camps allowed the GEC interns to expand and diversify their summer internship experience at the Illinois EPA by working directly with students and enhancing their own knowledge of environmental issues. Feedback indicated that, hot or not, Junior GEC was a memorable experience for both interns and students.

Information on the 1998 GEC program can be obtained from Kurt Niebergall at: 217/785-1620. Application forms will be available through the Illinois EPA website after February at: <http://www.epa.state.il.us>.

SCOUT...(CONT FROM P.2)

Ten feet further they created a riparian zone for seeds. On the day of the planting they also had 18" silky dogwoods on the other side of the creek.

Most of the project was funded by donations and in-kind contributions. Anthony's father's construction company did most of the land preparation and paid for the volunteers' lunches and tools. The Ernst Seeding Taylor Creek Restoration Nursery donated seeds. The park district and village each contributed \$500 for plants. Anthony was responsible for recruiting volunteers and providing a cooler and ice for just \$7.

The only surprise for Anthony came on the weekend of the planting when 76 volunteers, including fellow Scouts, showed up to work. "I was expecting about 20 people. It turned out to be too many people and not enough jobs, but I made sure everyone stayed busy," says Anthony with a soft chuckle.

Nikola was equally impressed with the effort and the results. "It's one of the better volunteer efforts that I've seen, from the installation and coordination of resources to completing the project." Others apparently agreed. He's been featured on a local cable program and Land and Water Magazine.

As for the future, Anthony thinks he'll follow in his father's footsteps into the construction business armed with a new understanding of the value of land. "This was a good experience," says Anthony. "It taught me how the ground works, how water systems fit in, and how my (construction) job would be."

And he offers advice to other students with similar ideas. "If you're interested, you should try it . . . I thought it was fun and cool!"



Darwin Burkhardt, BOA checks out Chicago's new hydrogen-fueled buses for "Our Environment Today" program on alternative fuels.

ILLINOIS EPA VIDEO LIST

The following is a list of videos available from the Illinois-EPA. To receive a copy please send a VHS tape to:

Illinois EPA Studio
P.O. Box 19276
Springfield, IL 62794-9276

Or call Bob Wiatrolik or Naomi Greene at: (217) 785-1629 for information about specific programs.

NEW:

"Farmers: First Stewards of the Land"
"Clearing the Air on Alternative Fuels"
"Governor's Environmental Corps"

OTHER VIDEOS:

Air Monitoring
Asbestos
Atrazine & Drinking Water Supply
Biological Stream Sampling
Cash for Clunkers

Clean Break and LONZA's Cleanup Efforts

Coal Mining: Environmental Changes

Community Relations and the Waukegan Harbor Cleanup Project

Environmental Education

Flood of 1993: Parts I and II

Glenview Naval Base Closure

Hazardous Waste Cleanups

Household Hazardous Waste Collections

Illinois EPA - 25 Years Ago

Illinois EPA in the Field - Parts I and II

Methane Recovery

Noise Pollution

Ozone and Partners for Clean Air Pollution Prevention

Stream Sampling

Stage II Vapor Recovery

Tunnel and Reservoir Plan (TARP)

Tire Shredding and Cleanups

Vehicle Inspection and Maintenance

WATER IS THE LIQUID OF LIFE

Water is the liquid of life
It's important in many ways,
It helps us do so many things
That it's time to give it praise.

Drink 8 glasses of water
Is what you should do everyday,
To keep yourself healthy
While you work and while you play.

Water makes things grow
Like corn, fruit, and wheat,
If we did not have water
We would not have food to eat.

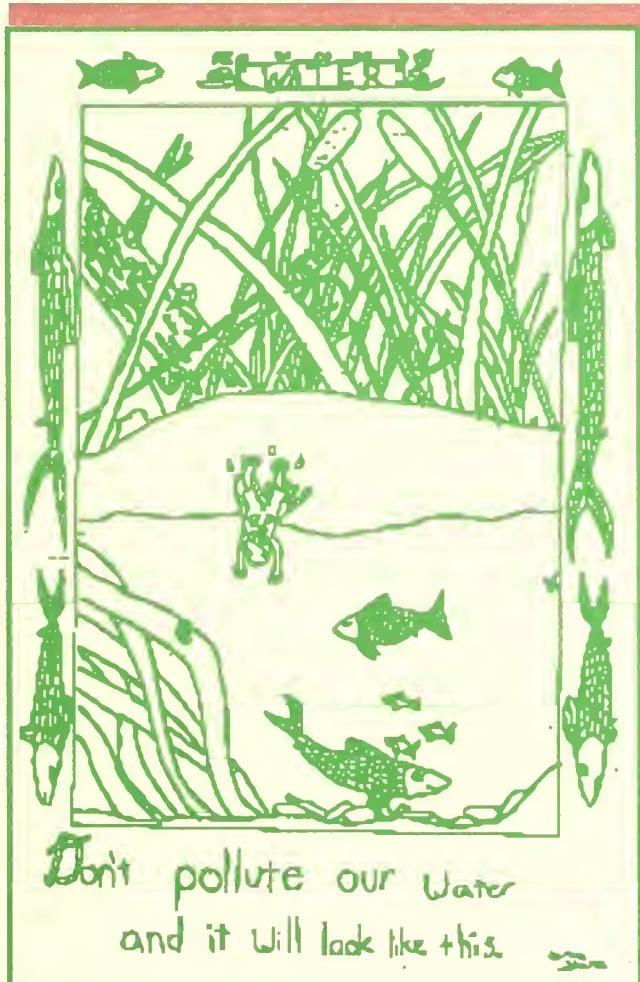
Water makes things pretty
Pretty things like these:
Tulips, violets, and roses
and the bushes and the trees.

Water helps to keep us clean—
Our bodies and our clothes,
using water in these ways
Keeps us smelling like a rose.

We need water
For everything we do
Water is important
For me and for you.

--Michael Godziszewski,
St. Eugene School, Chicago

"GREEN" CREATIONS



James Sharpe, Link School, Elk Grove, Ill.

CALL FOR "GREEN" ART!

The drawing and poem were winning entries in a recent Illinois EPA competition. Do you have drawing or writing talent? Let us hear from you! We will print the best environmentally-related cartoon, drawing, poem, photo or essay in our Spring issue. These eventually end up on our website! Deadline is March 31st.

VISIT OUR WEB SITE!

www.epa.state.il.us

Need more environmental resource information?
Or information about the Illinois EPA? Visit us
on the internet. You'll also find our "Envirofun
Page" with activities and games for your younger
brother or sister.



LET US HEAR FROM YOU!



For our Spring/Summer issue we would like to publish a list of Environmental Clubs. If you or your school have one, let us know. Send us the name of the contact or advisor, school, address and email. This will be a new list, so don't assume we have you listed if you've sent us information in the past. Also let us and other schools across the state know about your (class or student) projects, or interests.

Deadline is March 31, 1998.

Contact us at:

GREEN TALK
Illinois EPA
P.O. Box 19276
Springfield, IL 62794-9276
(217) 557-1930

Or email us at:

epa8118@epa.state.il.us

Green TALK

Illinois Environmental Protection Agency
2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

ADDRESS CORRECTION REQUESTED

THANK YOU!

Journalism student friends at Springfield's Lanphier High School. Kim Harrison, John Richardson, Kory Oliver and Keilan Bonner volunteered some of their time as offering suggestions and their opinions as we reviewed the layout for our newsletter.

BULK RATE
U. S. Postage Paid
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Springfield, IL



Green TALK

An Environmental Newsletter for High School Students and Teachers

Thousands celebrate 'Clean Water'

Nearly five thousand Illinois students, teachers, business professionals and environmentalists joined by an odd assortment of tiny tadpoles, wiggly worms, native blue gills and zebra mussels gathered in Peoria for the annual "Clean Water Celebration."

The event gives students a chance to mingle amid exhibits on riverbank erosion, meet an astronaut, look at the stars, race sailboats, make fish prints or study native Illinois fish in a giant aquarium for a free, fun and educational experience.

"We have brought students here since 1991 to talk about and share experiences on water projects," explains Dr. Robert Williams, program coordinator and Director of the Illinois Rivers Project. He adds that the students bring back to their communities the insights they gather at the events. Williams says that includes an understanding that the "basic right of all people is having clean water in America."

Notre Dame High School biology teacher Tom Pilat agrees. His students have been involved in independent research projects

DEPOSITORY

JUN 11 1998

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN



and conducting water tests on the Illinois River.

"Some students look at the river and believe it's all right the way it is, that it doesn't require attention," says Pilat. "A lot of times when they become aware of tests and their results they realize that there is some serious degradation and loss of habitat and quality. They become very interested in finding a solution both personally and for the community."

(turn to page 2)

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'Clean Water' (Cont'd from p.1)

This year's event attracted hundreds of high school students from the Rivers Project and more than 2500 middle school students from Central Illinois for presentations, art and science exhibits, and music. More than 30 schools and 40 environmental organizations and businesses offered exhibits or presentations on a wide range of topics including recycling, wetlands and wildlife, and water treatment. Among the exhibits were a semi-trailer sized fish aquarium, a biodiversity display, a coral reef, water taste tests and a campsite from the historical French "voyageurs," and the Illinois EPA's "water wheel."

"This is what we drink!"

Chicago's Shedd Aquarium offered the "Funky Frogfest" program, while the Minneapolis-based Small Change Theatre group presented live performances of "Showdown at Dry Gulch." The Illinois EPA also provides financial support for the event.

Perhaps the most impressive presentation of the two-day celebration was the "Parade of Waters" that kicked off this year's event. Students carrying blue balloons and water from different Illinois rivers, lakes and streams gathered at the Peoria's riverfront. There, they poured the waters from across the state into a large glass bowl. For most, the mixing of the many waters is a meaningful process.



David Hayna of the Ho-Chunk Nation offers peace pipe and blessing during opening ceremony of "Clean Water" Celebration in Peoria.

Chris Palmer, a student at Dundee-Crown High School in Carpentersville carried water from the Fox River and thinks the meaning that the event conveys is important. "Today is important. It tells people that we need to do something, and that if we stay together we can improve the environment."

When asked why people downstate from the Fox should care what happens to the water in his community he responded, "Because it's not only important to people in the region, but the environment affects us all. It affects everyone. Legislators

should be more aware of this and know that they can save money if they (start to) treat the water."

Student Silvia Gutierrez of Chicago carried water down from the Chicago River. She expressed dismay on seeing the polluted gray water being collected in the fishbowl. "This is what we drink," she says. And offered a reminder to residents outside her community, "this goes to them too!"

For more information on the Rivers Project, visit their website at:
<http://www.siu.edu/OSME/river>

JOIN THE CLUB!



A"green thumbs-up" and a howdy to the following school clubs. We'd like to hear from others for a list in the fall. Be sure to call, e-mail or "snail" mail us about some of the activities. We'd also love to have pictures. Meantime, the following clubs welcome contacts from your school.

Dundee-Crown H.S.
1 Charger Country Dr.
Carpentersville, Il. 60110
847-426-1322
swick@d300.kane.k12.il.us
Advisor Gary Swick tells Green Talk:

The Environmental Science program at Dundee-Crown H.S. currently consists of Environmental Science I, ES II, River research and Natural Resource research. ESI gives the

ecology foundation through a lot of field work including a major unit on zoos and/or wolf restoration. The ES II crew runs the school's comprehensive recycling program, and participates in various annual events, mentors younger students, and pursues projects to improve the local community. This year they helped do the necessary research to implement a drinking water protection program for the Village of East Dundee. The efforts led to consideration of a new protection ordinance

East Peoria H.S.
1401 E. Washington
East Peoria, IL 61611
Students named their club Healing Our Planet's Environment" (H.O.P.E.). Their advisor is Mr. Martin Hobbs.

This year HOPE was involved in the state's Hazardous Waste pick-up in which they also helped distribute surveys and information. The club was also active in a tire and waste collection through the Tazwell County Health Department. Shoe recycling became another club activity that also helped raise funds when they sold the shoes they collected to a company.

Hoffman Estates H.S.
1100 W. Higgins Rd.
Hoffman Estates, IL 60195
Their club is Students Against Violating the Environment (S.A.V.E.). This year's president is Nisha Kapadia. Mr. Eric Patterson is the club's sponsor.

According to Nisha, they had two projects going this year. One was to get aluminum can recycling going at their school. The other is to convince their local representative that global warming exists.

Morton H.S. - West Campus
2400 S. Home
Berwyn, IL 60402

The school has an Ecology Club with three advisors — Ms. Marion Tilley, Mrs. Joan Scheltens and Mr. John Berg.

St. Aloysius School
2125 N. 21st St.
Springfield, IL 62702
stals@fgi.net
Advisor Sandy Kennedy tells Green Talk:

"Throughout the year our Environmental Club has recycled cans and white paper. A bin is in every classroom and collected every Friday.

We participated in a contest sponsored by the Springfield Jaycees to see which school in grades K-4 can recycle the most cans. All money was sent to a children's home by the Jaycees. We don't know if we have won yet, as the contest just ended. We all did participate in the Earth Stewardship Day at the fair-grounds in April. That was great!!

Our plans for this fall are to paint flowers on our garbage dumpsters at school!! We also hope to adopt a manatee from the other money we have earned throughout the year from our can recycling efforts."

Sterling H.S.
601 4th Ave.
Sterling, IL 61081
Teacher Connie Jones teaches 250 students in Environmental biology classes.

E-mail us with your club activities and info at:
epa8118@epa.state.il.us

STUDENTS APPLY PENS AND PAINTS AGAINST



Winning poster by
John Fletcher 5th grade
St. Alexander School
Palos Heights, IL

Winning poster
by Brenna Matysik
6th grade
Wolf Branch School
Swansea, IL

Poetry winner

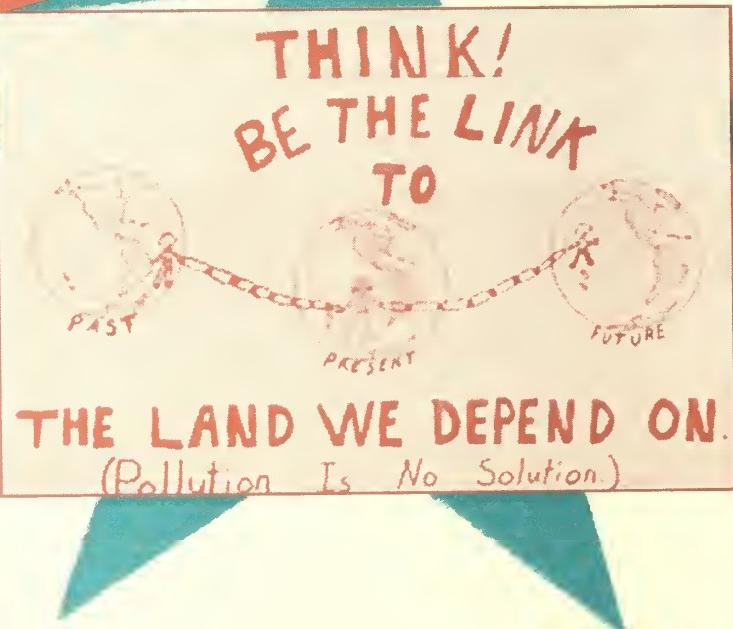
The Land We Depend On

*The Land We Depend On
is the land that we live on.
It gives us water, grows our grain
and we repay it with acid rain.
We cut its forests to build our homes,
leaving its animals with no homes of
their own.*

*The Land We Depend On
is ours to use,
but not to pollute, or to abuse.
Its rivers and ponds, fields and flowers,
belong to the future too, they are not
just ours.*

*The Land We Depend On
is not something to hate.
It is something we need
something that is great!
So let's not pollute it or waste it all,
its the Land We Depend On after all.*

*Emily Waldron, grade 5
Sparta Lincoln Middle School
Sparta*



Forty-eight Illinois fifth and sixth grade artists and writers were honored at the Illinois State Museum in Springfield during April with a month long exhibit of their works. An honors reception was held at the museum March 21 for the pupils, their families and teachers, kicking off a display of their environmental drawings, poems and essays.

Last January, students around Illinois studied and then illustrated environmental awareness in a course sponsored by the Illinois Environmental Protection Agency (EPA).

Participating schools were eligible to select two entries in each the drawing and writing categories for judging in Springfield. Nearly 200 entries were evaluated to select 50 finalists. A second judging then identified six entries to receive U.S. savings bonds and specially inscribed books for their creators' school libraries. All 50 finalists received ribbons and certificates for their participation.

The extended display marks a new direction for the Illinois EPA's 11-year-old environmental education effort. For the first time this year, sixth as well as fifth graders in Illinois schools were invited to participate in the upgraded, expanded and renamed program, now called "Air, Land & Water." This year's theme was "The Land We Depend On."

OLLUTION

Winning poster by
Alison Hunt, 6th grade
Lake Zurich
Lake Zurich Middle School



Awards during the reception were presented by William Child, chief of the Illinois EPA's Bureau of Land, who told the youngsters "You all should have won, because these works show you understand the importance of the Illinois environment."

Child spoke briefly on the importance of environmental study in the classroom, and said programs such as this not only educate students but make them teachers who can in turn instruct their families and friends about protecting their environment.

Top winners were John Fletcher of Palos Heights, a student at St. Alexander school, who took firsts for poster and written entries; Alison Hunt, Lake Zurich, Lake Zurich Middle School North; Emily Waldron, Sparta, Sparta Lincoln Middle School; Brenna Matysik, Swansea, Wolf Branch School; and Kaitlyn Neises, Galena, Nativity BVM school.

At the close of the Museum exhibition, the top six entries were spotlighted in a traveling exhibit at three Springfield sites during May, and will be added to the Illinois EPA's homepage at www.epa.state.il.us

Written by Joan Muraro, Public Information Officer for Illinois EPA's Bureau of Water.

POETRY WINNER

I the Land

*I am the land, fragile and strong.
Land you depend on, from dawn till dawn.
It's better you save me, before I am gone.
These conservation games just make me yawn.
You've got to carry out what you all say.
Or else your children, they will pay.
The fields will all wither,
The crops they will fail.
Animals will die from whale to the snail.
So please, don't you see?
We are in this together,
YOU AND ME.*

Kaitlyn Neises, grade 6
Nativity BVM
E. Dubuque

Get into
ENVIROTHON!

An academic
environmental
competition

www.envirothon.org

"GREEN" BOOKS

Check these out this summer!

Summer needn't be dull and boring. Besides swimming and playing, you can add to your knowledge and even look into some science activities and projects by checking out some environmental books.

The following list is provided by former teacher and environmental education researcher Peggy Dunn.

Find yourself in a rut on a rainy day? Try some of the activities in these books. Or, if you come across some not on this list that you enjoyed let us know. We'll print brief reviews from students in our fall issue!

Atlas of Endangered Places, Steve Polluck. Facts on File (1994).

Written for middle school students, this is an excellent introduction for older students and general readers as well. The author makes generous use of full-color photos and maps to introduce endangered areas around the world.

Botany for All Ages: Discovering Nature through Activities Using Plants, Jorie Hunken. 2nd ed. Old Saybrook, Conn.:Globe Pequot Press (1994).

Filled with activities on plant growth, observation, and experimentation. These informative activities are simple enough for any beginner, but also beneficial to those past the beginning stage. Many exercises are easily adaptable as meaningful field trips.

Chameleon Condos - Critters and Critical Thinking, Craig Best. North Carolina: Carolina Biological (1994).

This book shows you how to build and use condos; low-cost, small-critter habitats that teachers and students can make from 2-liter recycled plastic soda bottles. They provide highly visible habitats for anoles, crickets, and ants.

Discover Nature Close to Home, Elizabeth Lawlor. North Carolina: Carolina Biological Supply Co. (1993).

An exceptional guide to the tree canopy, field, and forest floor. Using a basic kit of materials found around the school or home, students can explore nature and learn from hands-on activities.

Environmental Science, Steven H. Dashevsky. Portland, ME: J. Weston Walch (1993).

A virtual gold mine of creative ideas for teachers or curious students. The text is filled with nearly two dozen fascinating experiments.

Environmental Science Activities, Dorothy Rosenthal. North Carolina: Carolina Biological Supply Co. (1995).

This is primarily intended to supplement a textbook. But each of its 46 introductory activities provides background information, materials list, and instructions. Most require materials commonly found in the home or school.

Environmental Chemistry, David Newton. Portland, ME: J. Weston Walch (1991).

This introductory text contains information about the major chemical processes affecting our environment and about how we can control the future. Also includes simple experiments.

Eyewitness Handbook of Trees, Allen Coombes. New York: Dorling Kindersley (1992).

600 full-color photos. This visual guide offers easy-to-follow steps leading to the identification of more than 500 specimens of trees around the world.

How Nature Works. 100 Ways Parents and Kids Can Share the Secrets of Nature, David Burnie. Pleasantville, NY: Readers Digest Association (1991).

Packed with ideas for exciting activities. This colorful book shows how to discover many fascinating facts about plants and animals with simple, hands-on experiments.

Contest Winners

The Land We Depend On

We depend on the land we live on for every breath we take. Plants depend on the soil to grow. We depend on the plants to produce the oxygen we breathe and the food we eat and even the clothes we wear. Animals graze on the plant life and we eat meat from the animals. We also use products from plants and animals to make clothes, medicine, and many other items we use in our everyday lives.

If we don't take care of the land, we won't survive. Air, land, and water pollution all interact to upset our delicate eco-system. Polluted water destroys marine life and run-off deteriorates the soil. Poor quality soil produces less plant life, which produces less oxygen and provides less vegetation for animal life. Air pollution contaminates plant and animal life.

The Earth and everything on it, living and non-living, interact to influence the life we have. The land we depend on depends on us to keep balance in this complicated and delicate system.

John Fletcher, grade 5
St. Alexander School
Palos Heights



Contest winners (front) Alison Hunt, Emily Waldron, John Fletcher, and (back) Kaitlin Neises pose with the chief of the Illinois EPA's Bureau of Land, William Child.

VISIT OUR WEB SITE!



Need more environmental resource information? Or information about the Illinois EPA? Visit us on the internet. You'll also find our "Envirofun Page" with activities and games for your younger brother or sister.

www.epa.state.il.us

LET US HEAR FROM YOU!



For our Fall issue we would like to add to the list of Environmental Clubs. If you or your school have one, let us know. Send us the name of the contact or advisor, school, address and email. Also let us and other schools across the state know about your (class or student) projects, or interests.

Deadline is September 1, 1998.

Contact us at:

GREEN TALK
Illinois EPA
P.O. Box 19276
Springfield, IL 62794-9276
(217) 557-1930

Or email us at:

epa8118@epa.state.il.us

Green TALK

Illinois Environmental Protection Agency
2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

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Illinois EPA Video List

The following is a list of videos available from the Illinois EPA. To receive a copy please send a VHS tape to:

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Springfield, IL 62794-9276

Or call Bob Wiatrolik or Naomi Greene at: (217) 785-1629.

NEW:

Watersheds: We All Live Downstream
Clearing the Air on Alternative Fuels
Governor's Environmental Corps

OTHER VIDEOS:

Air Monitoring
Asbestos
Atrazine & Drinking Water Supply
Biological Stream Sampling
Cash for Clunkers
Clean Break / LONZA's Cleanup Efforts

Coal Mining: Environmental Changes

Community Relations and the Waukegan Harbor Cleanup Project
Environmental Education

Farmers: First Stewards of the Land
Flood of 1993: Parts I and II
Glenview Naval Base Closure
Hazardous Waste Cleanups
Household Hazardous Waste Collections

Illinois EPA - 25 Years Ago
Illinois EPA in the Field - Parts I and II

Methane Recovery
Noise Pollution
Ozone and Partners for Clean Air
Pollution Prevention
Stream Sampling
Stage II Vapor Recovery
Tunnel and Reservoir Plan (TARP)
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UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Fall/Winter 1998

Green TALK

An Environmental Newsletter for High School Students and Teachers

Thousands celebrate 'Clean Water'

Nearly five thousand Illinois students, teachers, business professionals and environmentalists joined by an odd assortment of tiny tadpoles, wiggly worms, native blue gills and zebra mussels gathered in Peoria for the annual "Clean Water Celebration" last May.

The event gave students a chance to mingle amid exhibits on riverbank erosion, meet an astronaut, look at the stars, race sailboats, make fish prints or study native Illinois fish in a giant aquarium for a free, fun and educational experience.

"We have brought students here since 1991 to talk about and share experiences on water projects," explains Dr. Robert Williams, program coordinator and Director of the Illinois Rivers Project. He adds that the students take back to their communities the insights they gather at the events. Williams says that includes an understanding that the "basic right of all people is having clean water in America."

Notre Dame High School biology teacher Tom Pilat agrees. His students have been involved in independent research projects and



conducting water tests on the Illinois River.

"Some students look at the river and believe it's all right the way it is, that it doesn't require attention," says Pilat. "A lot of times when they become aware of tests and their results they realize that there is some serious degradation and loss of habitat and quality. They become very interested in finding a solution both personally and for the community."

(turn to page 2)

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'Clean Water' (Cont'd from p.1)

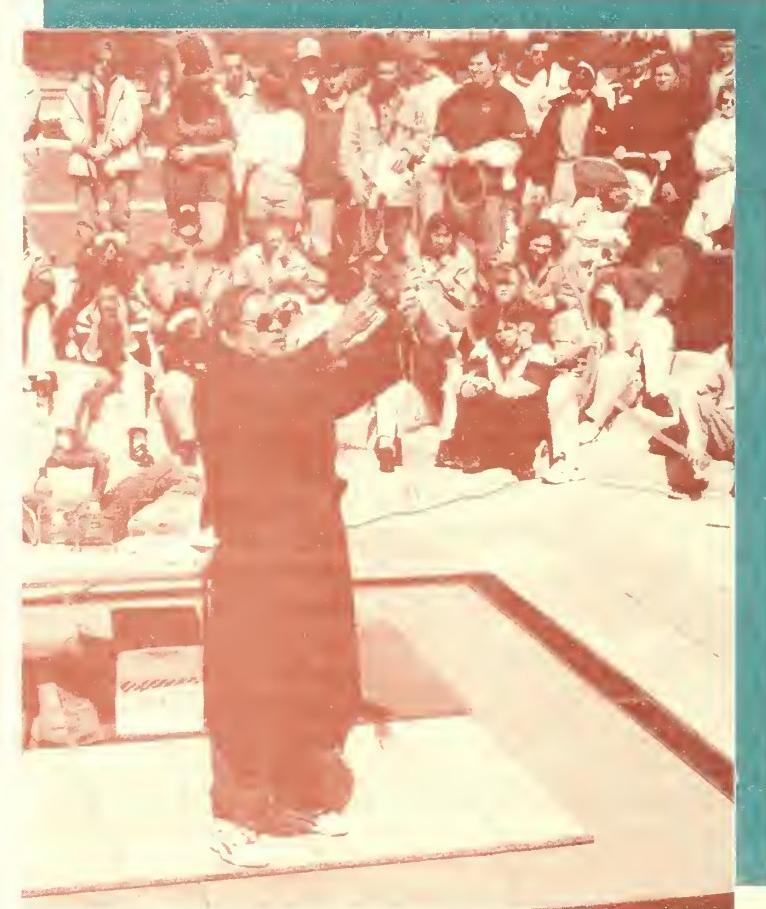
This year's event attracted hundreds of high school students from the Rivers Project and more than 2500 middle school students from central Illinois for presentations, art and science exhibits, and music. More than 30 schools and 40 environmental organizations and businesses offered exhibits or presentations on a wide range of topics including recycling, wetlands and wildlife, and water treatment. Among the exhibits were a semi-trailer-sized fish aquarium, a biodiversity display, a coral reef, water taste tests, a campsite from the historical French "voyageurs,"

"This is the source of what we drink!"

and the Illinois EPA's "water wheel."

Chicago's Shedd Aquarium offered the "Funky Frogfest" program, while the Minneapolis-based Small Change Theatre group presented live performances of "Showdown at Dry Gulch." The Illinois EPA also provides financial support for the event.

Perhaps the most impressive presentation of the two-day celebration was the "Parade of Waters" that kicked off this year's event. Students carrying blue balloons and water from different Illinois rivers, lakes and streams gathered at the Peoria's riverfront. There, they poured the waters from across the state into a large glass bowl. For most, the mixing



David Hayna of the Ho-Chunk Nation offers peace pipe and blessing during opening ceremony of "Clean Water" Celebration in Peoria.

of the many waters is a meaningful process.

Chris Palmer, a student at Dundee-Crown High School in Carpentersville carried water from the Fox River and thinks the meaning that the event conveys is important. "Today is important. It tells people that we need to do something, and that if we stay together we can improve the environment."

When asked why people downstate from the Fox should care what happens to the water in his community he responded, "Because it's not only important to people in the region, but the environment affects us all. It

affects everyone. Legislators should be more aware of this and know that they can save money if we protect our water."

Student Silvia Gutierrez of Chicago carried water down from the Chicago River. She expressed dismay on seeing the gray water being collected in the fishbowl. "This is the source of what we drink," she said, and offered a reminder to residents outside her community, "this goes to them too!"

For more information on the Rivers Project, visit their website at:
<http://www.siu.edu/OSME/river>

Teens, Seniors Pair Up To PROTECT WATER

The Illinois EPA is participating in a unique 15-state pilot program that pairs senior volunteers with high school students for local source water protection efforts. The Source Water Protection Mentor Initiative Program is being coordinated through U.S. EPAs Region 5. The program teams local senior volunteers or mentors who are trained to provide technical support and assistance to communities participating in the program.

The project is funded through the Environmental Alliance for Senior Involvement to local Retired and Senior Volunteer Program (RSVP) offices. Senior volunteers in McHenry, Winnebago and Kane counties were trained in the basic principles of groundwater flow, potential sources and routes of groundwater contamination, and how to conduct inventories for potential contamination sources. The village of East Dundee was the first community in the state chosen to participate in the pilot because some of the initial work had already been conducted.

Students at Dundee-Crown High School volunteered for the partnering project aimed at completing the identification of potential threats to the water supply.

As Kim Kaeker, a Dundee-Crown student, put it, "The point is to find contamination before it gets into the groundwater."

Students and advisors held a kick-off meeting a year ago to lay out the project plan, train participants on the types of

businesses or activities that could pose a threat to the groundwater, and to familiarize them with East Dundee's drinking water system. Six teams of four to five students conducted windshield surveys and door-to-door interviews to



Students and mentors were given a tour of a well in East Dundee.



Overall, businesses were happy to cooperate with the volunteers and explain how they handle potential contaminants. Here a group views a container used to safely hold materials that could threaten groundwater.

gather information on potential threats to drinking water. The teams divided the water supply protection area into 12 gridded areas, completing the project over a two-week period.

Results from the research have been far-reaching. One unexpected result was the camaraderie that developed between students and the senior volunteers. Debbie Danitz, coordinator for the McHenry/Kane RSVP was initially concerned that students would not

work well with the senior volunteers. However, as work progressed a true respect grew for the senior population. Student advisor Gary Swick found students developed respect for the senior volunteers. Their initial impressions of them as "old folks" turned into one of admiration once they began working as teammates.

Equally important was bringing a real world environmental project into the classroom. This project,

(turn to page 4)

Byron Sophomores Focus on Superfund Site

Illinois EPA representatives loaded up their utility vehicles with yellow moon suits, airtanks, respirators, monitoring equipment, and sampling vials last April and headed towards Byron, Illinois.

This was not an outbreak of Ebola or an industrial chemical spill. Rather, Illinois EPA staff were heading toward Byron High School to offer presentations on hazardous waste sites and sampling procedures.

The activities are part of Byron School District's Outdoor Education Program which involves more than 150 sophomores in presentations about Superfund sites and environmental issues. Superfund sites are usually the most serious uncontrolled or abandoned hazardous waste sites which have been identified for possible long-term clean up.

At Byron, Illinois EPA representatives conducted discussions and demonstrations of personal protective

equipment, site safety, chemical sampling and monitoring, and environmental rules and regulations. Students' interest in Superfunding stems from the locations of a Superfund site just one mile from the high school.

Chemistry students had the opportunity to actually visit key locations, including the Byron Salvage Yard site, a quarry, and a groundwater monitoring station. Personnel from the U.S. EPA also met with them to discuss various issues regarding soil and groundwater contamination, site cleanup and technologies, and geologic and hydrogeologic characteristics in the area. One stop allowed students to observe groundwater monitoring and proper sampling protocol.

"It is important for them (the students) to see that what they are asked to learn in the classroom does have applications in real life jobs...We hope we can help create a generation with increased environmental responsibility and awareness," Gary Ferb, Byron High School instructor said.

Illinois EPA staff are available to provide similar services to other schools throughout the state. Nearby Superfund sites can be included for visits to provide a better understanding of local environmental problems.

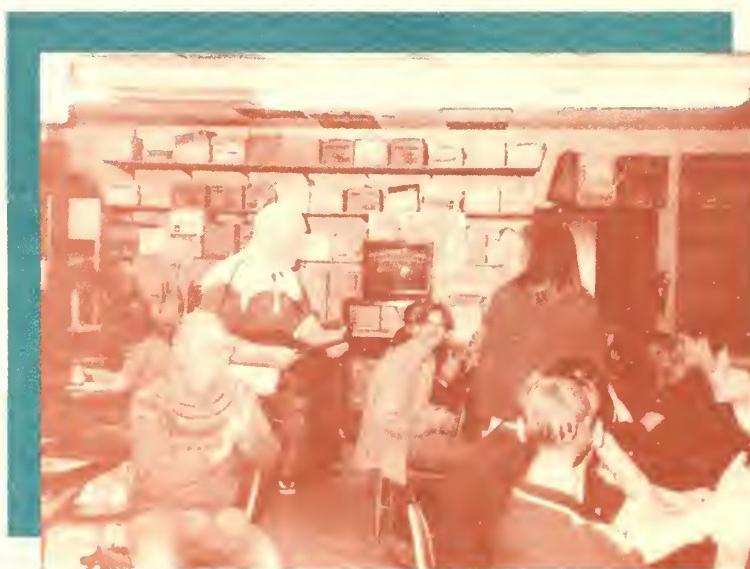
Contributed by: Michelle Tebrugge and Mark Britton, Illinois EPA

PROTECT WATER from page 3

Swick says, may have been "the most significant thing they have ever done in school or so far in their lifetimes, and may mold their future careers or actions in protecting the environment. This will be their memory from the high school classroom."

Student Brissa Minajeras agreed. "It was fun and it was better than doing stuff out of a book."

Senior volunteer Dick Hilton says the experience proved valuable for them as well. "The



Each senior volunteer was presented with a plaque from the group with which they worked

with issues that impact the community.

Overall, the project and its results proved beneficial to both participants and the community."

Perhaps student Steve Schumacher best summed it up for everyone. "I live in East Dundee and I helped protect the water I drink."

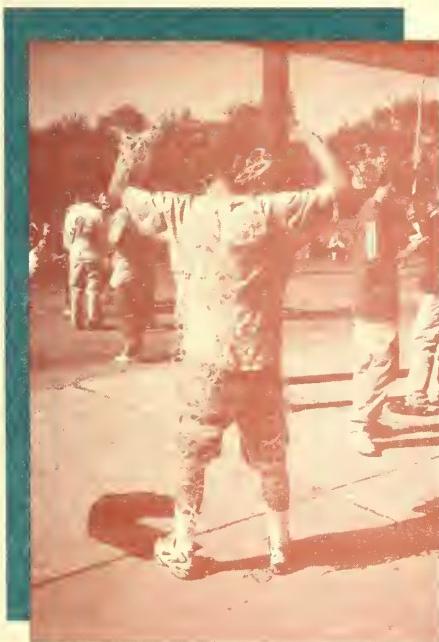
experience was as meaningful to me as it was to the group that I was assigned to work with," he said. "The entire project provided confirmation that both the young people and educators recognize the value of constructively dealing

Contributed by Joan Muraro, Public Information Officer, Illinois EPA Bureau of Water

DUNDEE-CROWN STUDENTS APPLY "GREEN" IDEAS AT HOME

A growing interest in environmental studies and a desire to improve local communities are fueling expansion of Environmental Science classes at Dundee-Crown High School in Carpentersville. The program now includes Environmental Science I, ES II, River Research and Natural Resource Research. ES I offers students an ecological foundation through field work, finishing with a major unit on zoos and/or wolf restoration.

The ES II class runs the school's comprehensive recycling program while seeking to enhance environmental awareness through various events. Past activities include "Illinois Recycling Day," "Earthweek," oil recycling, and Peoria's "Clean Water Celebration."



6-pack recycling man made an appearance at DCHS' Illinois Recycling Day



At the outdoor picnic and celebration, students were given the opportunity to participate in recycling games.

The class also mentors younger students and develops other local community projects. A new activity added last year was raising beetles to biologically control purple loosestrife.

Last year, students conducted research to develop a drinking water protection program for the village of East Dundee. Their efforts led to passage of a new ordinance protecting local water resources and prompted the community to develop other education strategies. (See "Teens and Seniors Pair Up to Protect Water")

Most of the environmental projects operate on an ongoing basis with each year's group of students expanding on previous efforts. Activities offer students the opportunity to explore environmental careers.

One ongoing project is in the River Research class which attempts to map the physical, cultural, biological and other features of a 10-mile stretch of the Fox River. Activities include hosting meetings of the Friends of the Fox River Monitoring Network.

In the Natural Resource class students conduct research for the Illinois Ecowatch programs. A new course this year is Raceway Woods which includes designing, developing, and operating a management plan for a 100-acre property in cooperation with the Dundee Township Park District and Kane County Forest Preserve District.

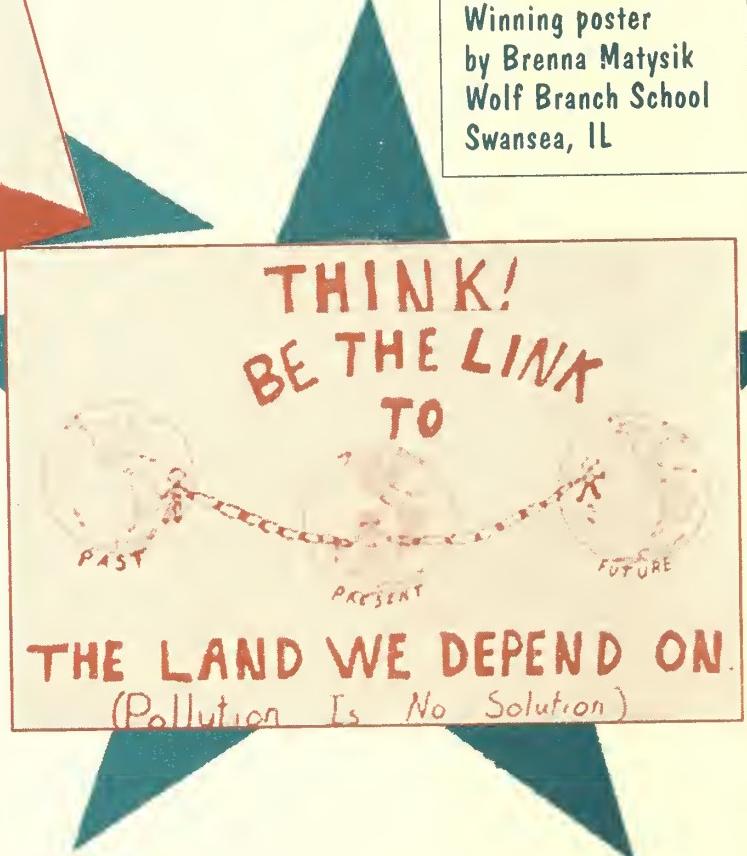
For Earthweek last spring, students hosted other schools during a "Water World" event. It featured an interactive circus of games, activities, demonstrations

(Turn to page 8)

STUDENTS APPLY PENS AND PAINTS AGAINST



Winning poster
by John Fletcher
St. Alexander School
Palos Heights, IL



Winning poster
by Brenna Matysik
Wolf Branch School
Swansea, IL

Poetry winner

The Land We Depend On

*The Land We Depend On
is the land that we live on.
It gives us water, grows our grain
and we repay it with acid rain.
We cut its forests to build our homes,
leaving its animals with no homes of
their own.*

*The Land We Depend On
is ours to use,
but not to pollute, or to abuse.
Its rivers and ponds, fields and flowers,
belong to the future too, they are not
just ours.*

*The Land We Depend On
is not something to hate.
It is something we need
something that is great!
So let's not pollute it or waste it all,
its the Land We Depend On after all.*

*...Emily Waldron,
Sparta Lincoln Middle School
Sparta*

Forty-eight Illinois fifth and sixth grade artists and writers were honored at the Illinois State Museum in Springfield during April with a month-long exhibit of their works. An honors reception was held at the museum last spring for the pupils, their families and teachers, kicking off a display of their environmental drawings, poems and essays.

Last January, students around Illinois studied and then illustrated environmental awareness in a course sponsored by the Illinois Environmental Protection Agency (EPA).

Participating schools were eligible to select two entries in each the drawing and writing categories for judging in Springfield. Nearly 200 entries were evaluated to select 50 finalists. A second judging then identified six entries to receive U.S. savings bonds and specially inscribed books for their creators' school libraries. All 50 finalists received ribbons and certificates for their participation.

The extended display marks a new direction for the Illinois EPA's 11-year-old environmental education effort. For the first time this year, sixth as well as fifth graders in Illinois schools were invited to participate in the upgraded, expanded and renamed program, now called "Air, Land & Water." This year's theme was "The Land We Depend On."

OLLUTION

Winning poster
by Alison Hunt,
Lake Zurich
Lake Zurich Middle School



Awards during the reception were presented by William Child, chief of the Illinois EPA's Bureau of Land, who told the youngsters "You all should have won, because these works show you understand the importance of the Illinois environment."

Child spoke briefly on the importance of environmental study in the classroom, and said programs such as this not only educate students but make them teachers who can in turn instruct their families and friends about protecting their environment.

Top winners were John Fletcher of Palos Heights, a student at St. Alexander school, who took firsts for poster and written entries; Alison Hunt, Lake Zurich, Lake Zurich Middle School North; Emily Waldron, Sparta, Sparta Lincoln Middle School; Brenna Matysik, Swansea, Wolf Branch School; and Kaitlyn Neises, Galena, Nativity BVM school.

At the close of the Museum exhibition, the top six entries were spotlighted in a traveling exhibit at three Springfield sites during May, and will be added to the Illinois EPA's homepage at www.epa.state.il.us

Written by Joan Muraro, Public Information Officer for Illinois EPA's Bureau of Water.

POETRY WINNER

I the Land

I am the land, fragile and strong.
Land you depend on, from dawn till dawn.

It's better you save me, before I am gone.

These conservation games just make me yawn.

You've got to carry out what you all say.

Or else your children, they will pay.

The fields will all wither,
The crops they will fail.
Animals will die from whale to the snail.

So please, don't you see?
We are in this together,
YOU AND ME.

Kaitlyn Neises
Nativity BVM
E. Dubuque

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BEYOND The CLASSROOM

Science and environmental teachers in the Fox River region are involved in KESTREL (Kane Environmental Science Teacher Resource Education League). The group consists of teachers and club sponsors from county middle and high schools in the Fox River and Kane County region, as well as resource agency professionals. The Regional Office of Education helps fund the monthly gatherings.

They report their successes, request help with problems, share curriculum and conference informa-

tion, and brainstorm actions. Every middle and high school in Kane County received training, equipment, and groundwater flow models through two workshops. In addition, nearly 80 students attended this year's annual Fox River Watershed Student Conference put on by KESTREL with the help of the Friends of the Fox River, Kane County Fire Protection Department, and Kane County Regional Office of the Environment.

"We suggest all regions pursue this type of coalition, as we have really benefitted from the network-

ing opportunities," said Dundee-Crown H.S. teacher Gary Swick. "Alone we all have valiant efforts, but together we are realizing huge impacts."

Elgin High School hosted a cafeteria waste conference and the county's environmental department office put on another fall environmental expo for the area schools. All this networking is producing results. The number of schools that are conducting a variety of high quality environmental programs is rapidly growing.

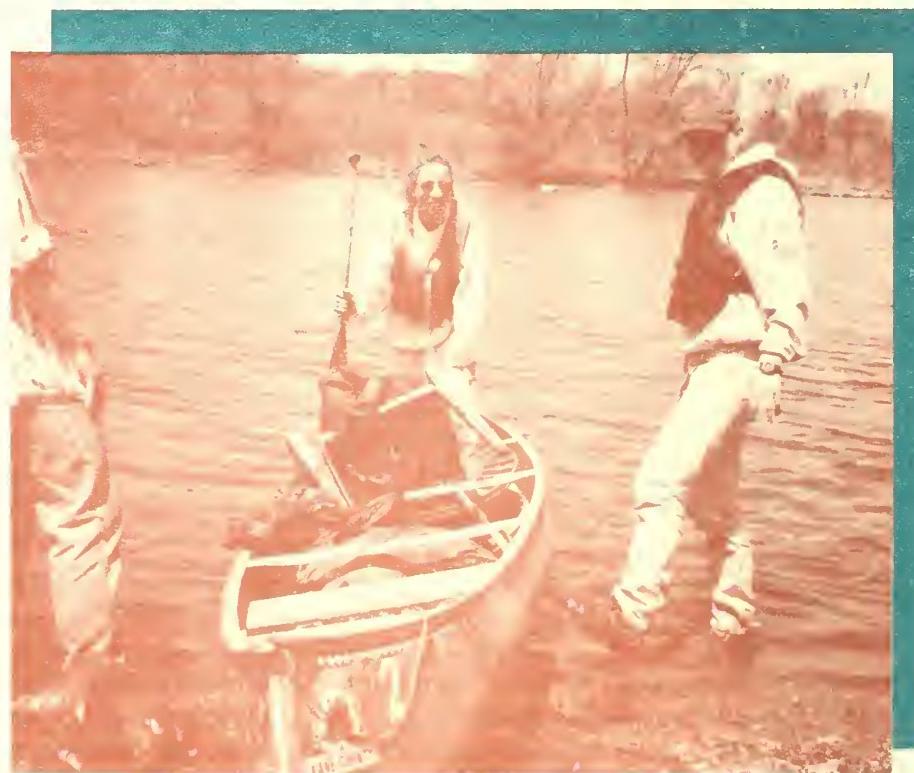
"GREEN" IDEAS from page 5

and presentations about water and the need to protect its quality. The week also included a picnic lunch and a musical/environmental message concert.

One student-inspired event was Kiss the Car Goodbye. Two autos were kissed off (beaten with hammers, picks, and axes) by students to symbolize the need to abandon environmentally harmful driving habits. Hundreds participated earning kissing privileges by doing something beneficial for the environment.

The Dundee-Crowns environmental crew can be contacted at: Dundee-Crown High School 1 Charger Country Dr. Carpentersville, IL 60110 (847) 426-1322 swick@d300.kane.k12.il.us

Contributed by Gary Swick,
Dundee-Crown H.S. science
teacher and club advisor.



A canoe provides transportation for students taking part in a river cleanup project.

Join the Club!



Dundee-Crown High School (see accompanying articles) was the first school to e-mail us information on their activities. However, we know there are many more involved in interesting, fun and valuable environmental activities. A "green thumbs-up" and a howdy to the following school clubs. Let us hear from you! Call, e-mail or "snail" mail us about some of your activities and events. We'd also love to have pictures. Meantime, the following clubs welcome contacts from your school.

East Peoria H.S.
1401 E. Washington
East Peoria, IL 61611
Students named their club "Healing Our Planet's Environment" (H.O.P.E.). Their advisor is Mr. Martin Hobbs.

This year HOPE was involved in the state's Hazardous Waste pick-up in which they helped distribute surveys and information. The club was also active in a tire and waste collection through the Tazewell County Health Department, and shoe recycling helped raise funds.

Belleville East High School Ecology Club
2555 West Blvd.
Belleville, IL 62221
NoThneeds@aol.com
Contact: Philip Short

DeKalb High School Eco Club
1515 S. 4th St.
DeKalb, IL 60115
Advisor: Chris Merrill
Contact: Virginia Hammerberg

Granite City High School Environmental Club
3101 Madison Ave.
Granite City, IL 62040
rskirbal@juno.com
Advisor: Richard Skirball

Hoffman Estates H.S.
1100 W. Higgins Rd.
Hoffman Estates, IL 60195
Their club is Students Against Violating the Environment (S.A.V.E.). This year's president is Nisha Kapadia. Mr. Eric Patterson is the club's sponsor.

According to Nisha they had two projects going this year. One was to get aluminum can recycling going at their school. The other is to convince their local representative that global warming exists."

Lake Forest High School Earth Rights Club
1285 N. McKinley Ave.
Lake Forest, IL 60045
bashau@lfhs.lfc.edu
Contact: Umaer Basha

Niles West High School SAVE
6639 N. Trumbull
Lincolnwood, IL 60645
caro@ rci.ripco.com
Advisor: Chris Fontana
Contact: Caroline Ishida

Morton H.S. - West Campus
2400 S. Home
Berwyn, IL 60402
The school has an Ecology Club with three advisors — Ms. Marion Tilley, Mrs. Joan Scheltens and Mr. John Berg.

Schaumburg High School SAVE
1100 W. Schaumburg Rd.
Schaumburg, IL 60174

St. Aloysius School
2125 N. 21st St.
Springfield, IL 62702
stals@fgi.net

Advisor: Sandy Kennedy tells Green Talk: "Throughout the year our Environmental Club has recycled cans and white paper. A bin is in every classroom and collected every Friday.

"We participated in a contest sponsored by the Springfield Jaycees to see which school in grades K-4 can recycle the most cans. All money was sent to a children's home by the Jaycees. We did participate in the Earth Stewardship Day at the fairgrounds in April. That was great!!

"Our plans for this fall are to paint flowers on our garbage dumpsters at school!!!"

Sterling H.S.
601 4th Ave.
Sterling, IL 61081

Teacher Connie Jones has about 250 students in environmental biology classes.

Adlai Stevenson High School SAVE
1 Stevenson Dr.
Lincolnshire, IL 60069
(847) 634-4000
alebrun@email.district125.k12.il.us
Advisors: Amanda LeBrun and Gloria Huntoon
Contact: Amanda LeBrun ext.373
E-mail us with your club activities and info at: epa8118@epa.state.il.us

Warren Township High School Mother Earth's Concerned Student (MECS)
500 N. O'Plaine Rd.
Gurnee, IL 60031
ahanson@mail.warren.lake.k12.il.us
Advisors: Anne Hanson and Krista Gessler
Contact: Anne Hanson

"GREEN" BOOKS

Check these out!

Summer needn't be dull and boring. Besides swimming and playing, you can add to your knowledge and even look into some science activities and projects by checking out some environmental books.

Find yourself in a rut on a rainy day? Try some of the activities in these books. Or, if you come across some not on this list that you enjoyed let us know. We'll print brief reviews from students in our fall issue!

The following list is provided by former teacher and environmental education researcher Peggy Dunn.

Atlas of Endangered Places, Steve Polluck. Facts on File (1994).

Written for middle school students, this is an excellent introduction for older students and general readers as well. The author makes generous use of full-color photos and maps to introduce endangered areas around the world.

Botany for All Ages: Discovering Nature through Activities Using Plants, Jorie Hunkin. 2nd ed. Old Saybrook, Conn.: Globe Pequot Press (1994).

Filled with activities involving plant growth, observation, and experimentation. These informative activities are simple enough for any beginner, but also beneficial to those past the beginning stage. Many exercises are easily adaptable as meaningful field trips.

Chameleon Condos - Critters and Critical Thinking, Craig Best. North Carolina: Carolina Biological (1994).

This book shows you how to build and use condos, low-cost, small-critter habitats that teachers and students can make from 2-liter recycled plastic soda bottles. They provide highly visible habitats for anoles, crickets, and ants.

Discover Nature Close to Home, Elizabeth Lawlor. North Carolina: Carolina Biological Supply Co. (1993).

An exceptional guide to the tree canopy, field, and forest floor. Using a basic kit of materials found around the school or home, students can explore nature and learn from hands-on activities.

Environmental Science, Steven H. Dashevsky. Portland, ME: J. Weston Walch (1993).

A virtual gold mine of creative ideas for teachers or curious students. The text is filled with nearly two dozen fascinating experiments.

Environmental Science Activities, Dorothy Rosenthal. North Carolina: Carolina Biological Supply Co. (1995).

This is primarily intended to supplement a textbook, but each of its 46 introductory activities provides background information, materials list, and instructions. Most require materials commonly found in the home or school.

Environmental Chemistry, David Newton. Portland, ME: J. Weston Walch (1991).

This introductory text contains information about the major chemical processes affecting our environment and about how we can control the future. Also includes simple experiments.

Eyewitness Handbook of Trees, Allen Coombes. New York: Dorling Kindersley (1992).

Contains 600 full-color photos. This visual guide offers easy-to-follow steps leading to the identification of more than 500 specimens of trees around the world.

How Nature Works. 100 Ways Parents and Kids Can Share the Secrets of Nature, David Burnie. Pleasantville, NY: Readers Digest Association (1991).

Packed with ideas for exciting activities. This colorful book shows how to discover many fascinating facts about plants and animals with simple, hands-on experiments.

Contest Winners

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John Fletcher
St. Alexander School
Palos Heights



Contest winners (front) Alison Hunt, Emily Waldron, John Fletcher, and (back) Kaitlin Neises pose with the chief of the Illinois EPA's Bureau of Land, William Child.

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your younger brother or sister.

www.epa.state.il.us

LET US HEAR FROM YOU!



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Contact us at:

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Springfield, IL 62794-9276
(217) 524-8358

Or e-mail us at:

epa8150@epa.state.il.us

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Farmers: First Stewards of the Land Flood of 1993: Parts I and II

Glenview Naval Base Closure

Hazardous Waste Cleanups

Household Hazardous Waste Collections

Illinois EPA - 25 Years Ago

Illinois EPA in the Field - Parts I and II

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Noise Pollution

Ozone and Partners for Clean Air Stream Sampling

Stage II Vapor Recovery

Tunnel and Reservoir Plan (TARP)

Tire Shredding and Cleanups

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